1.0 SUMMARY

1.1 Proposed Action

The Federal Highway Administration (FHWA), in cooperation with the Florida Department of Transportation (FDOT), has prepared this Environmental Impact Statement (EIS) including a Section 4(f) Evaluation in association with the Crosstown Parkway Extension Project Development and Environment (PD&E) Study (formerly known as the Third East-West River Crossing Project). This PD&E Study and the EIS are being conducted by the City of Port St. Lucie (City) through a Local Agency Program (LAP) Agreement with FDOT, District 4. The proposed action is located in the City of Port St. Lucie, Florida. The study area is bordered on the north by Fallon Drive, on the south by Thornhill Drive, on the west by Manth Lane, and on the east by U.S. 1 (also known as S.R. 5). The location of the study area is shown in **Figures 1.1** and **1.2**. The Preferred Alternative (Alternative 1C) will extend the existing Crosstown Parkway from Manth Lane on the west, across the North Fork St. Lucie River (NFSLR) to U.S. 1 on the east, a distance of 1.96 miles. The 6-lane divided highway and bridge will serve multimodal transportation alternatives, including automobile, bicycle, pedestrian, and public transit.

What is the proposed action being evaluated?

- *The Preferred Alternative will extend the existing Crosstown Parkway from Manth Lane to U.S. 1, a distance of 1.96 miles.*
- *This project, which is in the City of Port St. Lucie, Florida, will require crossing the North Fork St. Lucie River.*

Why is the Crosstown Parkway Extension Needed?

- *The two existing crossings of the North Fork St. Lucie River at Port St. Lucie Boulevard and Prima Vista Boulevard are currently operating at a failing Level of Service.*
- *Projected population growth and associated increases in traffic threatens the safety and long-term viability of the existing corridors.*
- *The traffic congestion cannot be alleviated with intersection improvements or improvements to the existing bridges.*

The FHWA is the lead federal agency and is responsible for the preparation and content of this EIS, which evaluates the potential environmental impacts of the proposed project. The FHWA has prepared this EIS in compliance with the requirements of the National Environmental Policy Act (NEPA) of 1969; the Council on Environmental Quality's (CEQ) regulations implementing NEPA (40 CFR Parts 1500 through 1508); Section 4(f) of the U.S. Department of Transportation Act of 1966, as amended, and its implementing

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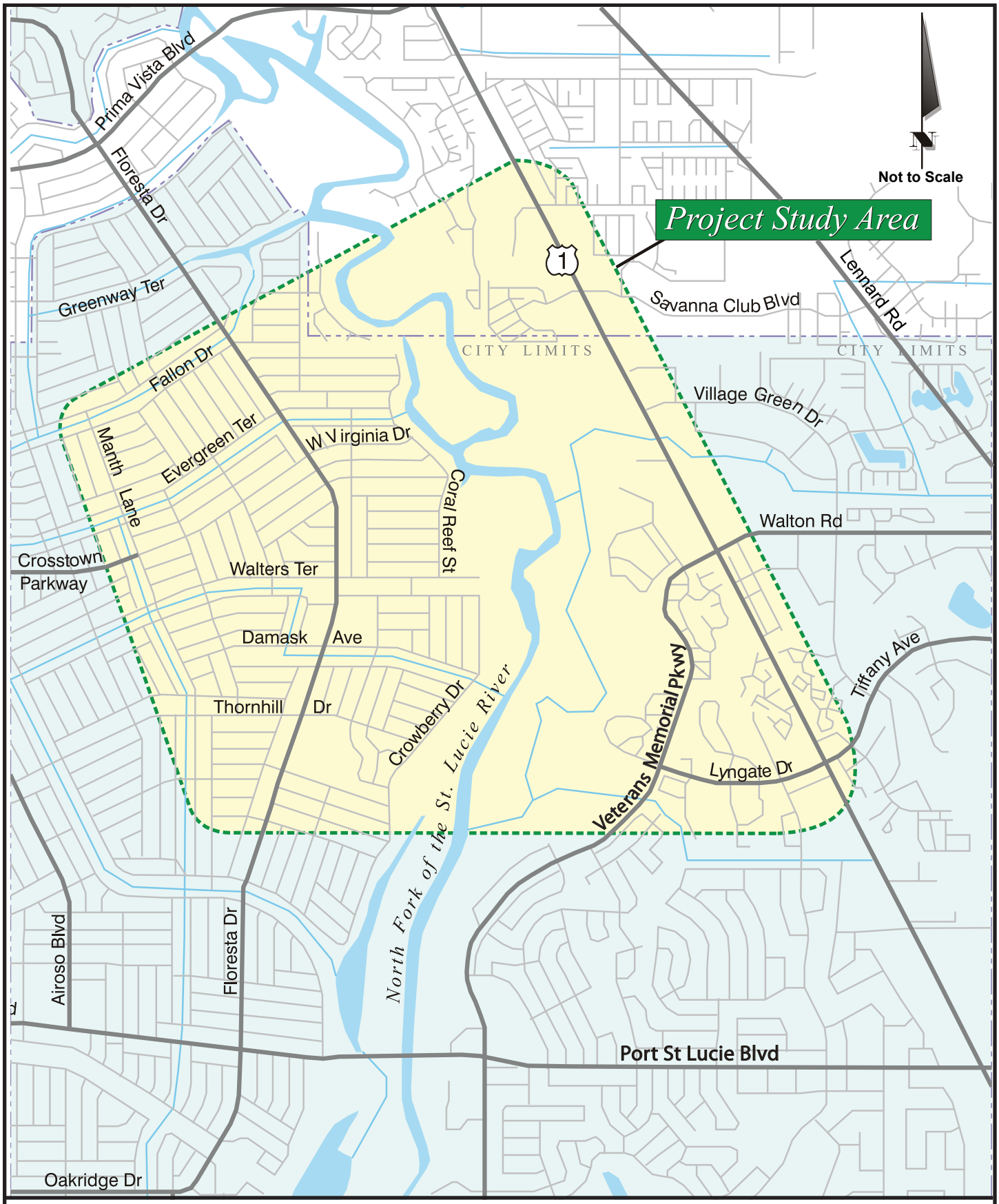
Regional Location Map

Figure 1.1



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Project Study Area

Figure 1.2

regulations at 23 CFR Part 774, and the *PD&E Manual*, which implements NEPA for the FDOT. The project sponsor, the City, selected a consultant to assist in the preparation of this document. The required coordination and outreach was conducted with regulatory and cooperating agencies, stakeholders, and the public during the preparation of this EIS. No person was excluded from participation in, denied the benefit of, or subjected to discrimination in the development of this study.

Florida's Efficient Transportation Decision Making (ETDM) process was established to facilitate early agency coordination and public outreach to improve the decision making process associated with project development, and to reduce the overall project delivery timeframe from concept to concrete. The ETDM process is recognized by FHWA as the state's Environmental Streamlining process, which is mandated under federal law. The ETDM process requires that project information be loaded into a statewide database to be reviewed through an on-line application called the Environmental Screening Tool (EST). This facilitates dissemination and review of project information by the Environmental Technical Advisory Team (ETAT),[1] which is comprised of resource and regulatory agencies from the region in which the project is located. Comments from the agencies are consolidated in a Programming Screen Summary Report and can be accessed through the EST at the FDOT ETDM website link (http://etdmpub.fla-etat.org/est/). This project's information is catalogued under project #8247. The agencies' ETDM comments are contained in **Appendix D** of this EIS.

After a thorough assessment of the data and analysis of the alternatives, extensive agency coordination, the project Public Hearing, and full consideration of all comments, the City staff, with input from FDOT and the St. Lucie County Transportation Planning Organization (TPO), recommended Alternative 1C as the Locally Preferred Alternative (LPA). Subsequent to that recommendation, on January 23, 2012, the Port St. Lucie City Council adopted the selection of Alternative 1C as the LPA for the extension of the Crosstown Parkway from Manth Lane to U.S. 1 (Resolution 12-R18, **Appendix E**). Alternative 1C is the Preferred Alternative.[2] The process and evaluation criteria utilized in selecting the LPA are summarized in Section 1.6.1 (Description of the Preferred Alternative) and detailed in Section 3.3.1 (Selection of the Preferred Alternative).

As used in this document, what is the difference among the terms Build Alternative, Locally Preferred Alternative, and Preferred Alternative?

- *"**Build Alternative**" refers to one of the six reasonable alternatives carried through the alternatives analysis and Public Hearing (Alternatives 2A, 2D, 1C, 1F, 6B, and 6A);*
- *"**Locally Preferred Alternative**" (LPA) refers to the alternative identified from among the build alternatives through the City's selection process and adopted by the City Council on January 23, 2012, and then recommended to FHWA as the preferred alternative (Alternative 1C); and*
- *"**Preferred Alternative**" refers to the alternative that FHWA concurred with the identification of, as the Preferred Alternative on July 30, 2012[2] (Alternative 1C).*

Following the selection of Alternative 1C as the

[1] The ETAT for this project includes FHWA and the cooperating agencies: the U.S. Army Corps of Engineers (USACE), the U.S. Environmental Protection Agency (USEPA), the U.S. National Marine Fisheries Service (NMFS), the U.S. Fish and Wildlife Service (USFWS), and the U.S. Coast Guard (USCG). Other ETAT agencies include the South Florida Water Management District (SFWMD), the Florida Department of Environmental Protection (FDEP), the Florida Fish and Wildlife Conservation Commission (FWC), Florida Department of Community Affairs, (now the Florida Department of Economic Opportunity), the Florida Department of State, the Miccosukee Tribe, Natural Resources Conservation Service, and the St. Lucie Transportation Planning Organization.

[2] Letter from FHWA, dated July 30, 2012 (**Appendix A**)

Preferred Alternative, additional avoidance and minimization measures were developed through coordination with the cooperating and involved agencies. This reduced unavoidable impacts of the Preferred Alternative to wetlands, listed species habitats, Section 4(f) use, and essential fish habitat.

1.2 Other Major Government Actions and Permits Required

Planned transportation actions within the project area include improvements to Floresta Drive, Lennard Road, and Walton Road. The City is planning to improve the capacity of Floresta Drive. The FDOT, in cooperation with St. Lucie County (County), completed a PD&E Study in 2007 to examine the need for, and feasibility of, constructing Lennard Road parallel to U.S. 1, extending from U.S. 1 (south of Easy Street) to Walton Road, to satisfy projected traffic demands in the area. The County completed the widening of Walton Road, Village Green Drive, and Lennard Road from Walton Road to U.S. 1 (south of Port St. Lucie Blvd). Three intersection geometry improvements are proposed to be completed within the project area, including Prima Vista Boulevard/Floresta Drive and Port St. Lucie Boulevard/Floresta Drive in association with the capacity improvements of Floresta Drive; and a third northbound left-turn lane at Port St. Lucie Boulevard/U.S. 1 (construction in early 2012).

The area around the intersection of U.S. 1 and Veterans Memorial Parkway/Walton Road is designated as the City of Port St. Lucie City Center. This area is planned to be a 70-acre mixed-use area, combining retail shops, restaurants, offices, and residential units. In December 2008, the City opened its new Civic Center in this area.

The Transportation Element of the City of Port St. Lucie Comprehensive Plan (as amended in 2003) includes a "New/Improved 6-Lane" facility on the approximate alignment of Alternative 1C. Thus, the Preferred Alternative is compatible with local growth management policies and adopted land use plans. Similarly, the adopted 2035 Regional Long Range Transportation Plan (2035 RLRTP) for the Martin-Metropolitan Planning Organization (MPO) and the St. Lucie TPO; (adopted in February 2011) includes a crossing in the general vicinity of the Preferred Alternative alignment.

For the construction of the Preferred Alternative, several permits and other government actions are required. It is anticipated that permits and/or other actions from the following agencies[3] will be required [see Section 5.3.20 (Permits Required) for more detail]:

- U.S. Army Corps of Engineers: Individual Permit under Section 404 of the Clean Water Act;
- U.S. Coast Guard: Permit for the construction of bridges crossing navigable waters of the United States;
- Florida Department of Environmental Protection: National Pollutant Discharge Elimination System (NPDES) permit and authorization for construction or use on, over, or under submerged lands owned by the state;
- South Florida Water Management District: Individual Environmental Resource Permit (ERP); Water Use Permit for dewatering. An ERP will also provide Water Quality Certification, as required by the Clean Water Act, Section 401;
- Florida Fish and Wildlife Conservation Commission: Relocation permit for gopher tortoises and their commensal species;
- Florida Department of Transportation: A right of way Utilization Permit from FDOT for a connection to U.S. 1 and for utility or drainage work in FDOT rights of way; and

[3] The USACE, USCG, USEPA, USFWS, and NMFS are designated cooperating agencies for the proposed project.

- Governor and the Cabinet: It is anticipated the Governor and the Cabinet, acting as the Board of Trustees of the Internal Improvement Trust Fund of the State of Florida, will authorize an easement to cross sovereignty submerged lands and disposition of state-owned lands.[4]

1.3 Alternatives Considered

A third crossing of the NFSLR has been recognized as a needed component of the City's transportation system since the late 1980s [1989 City of Port St. Lucie Comprehensive Plan, St. Lucie County 2025 Long Range Transportation Plan (LRTP), Martin-St. Lucie 2030 Regional Long Range Transportation Plan (RLRTP), and the current Martin–St. Lucie 2035 RLRTP]. The new crossing was identified between Port St. Lucie Boulevard and Prima Vista Boulevard to address substantial transportation deficiencies resulting from population growth. As a result, two studies were conducted by the City. The first study identified the appropriate corridor [*Analysis of Potential River Crossing Alternatives (to Reduce Traffic Congestion in the City of Port St. Lucie) - Part I of II, June 2008,* (*Corridor Report*)]. The second study examined the various alternatives within that corridor [*Crosstown Parkway Extension Corridor Alternatives Report – Part II of II, June 2008,* (*Alternatives Report*)].

What is the No Build Alternative?

- *The Crosstown Parkway would not be extended and no bridge would be constructed.*
- *The roadway improvements adopted in the local and regional Long Range Transportation Plans would be constructed.*

The *Alternatives Report* evaluated the No Build Alternative and several alternatives, with coordination and input by cooperating and municipal agencies and the public. At the conclusion of these studies, FHWA determined that six build alternatives would be carried forward as potential viable alternatives in the Draft EIS (DEIS).

The reports were reviewed by the ETAT. Both reports were posted in the FDOT EST via the FDOT ETDM Website to ensure review and comments by the ETAT. No comments were received on the *Corridor Report* or the *Alternatives Report* when they were published in the EST, and they were accepted by FHWA in March 2009.

Following the alternatives analysis, and to be consistent with the ETDM process, several alternatives were carried forward into the DEIS for further examination: the No Build Alternative, a Multimodal Alternative[5], a Transportation Systems Management (TSM)[6] Alternative, the six build alternatives, as well as the following additional alternatives recommended by the ETAT to avoid or minimize impacts:

- Widening of the existing bridges (at Port St. Lucie Boulevard and Prima Vista Boulevard) was considered at three different times during the development of the six build alternatives.[7] This alternative was rejected each time because, even with widening, both bridges would continue to operate beyond their capacity. Based on an analysis of the future forecasted conditions, both bridges would be severely congested, even if widened, and they would not be able to service the entire traffic

[4] After the Proprietary Mitigation Plan projects are completed (developed specifically for this project), it is anticipated the Board of Trustees will convey to the City an easement to cross state-owned lands.

[5] Multimodal refers to the use of travel modes other than single-occupant vehicles.

[6] Transportation System Management (TSM) refers to the use of operational techniques and intersection improvements.

[7] The widening of the existing bridges was considered during the *Corridor Report*, the *Alternatives Report*, and the Design Traffic Technical Memorandum (DTTM) prepared for the EIS.

demand that was forecasted to cross the NFSLR. Widening of the bridges would also impact the Savannas Preserve State Park (SPSP) and the NFSLR Aquatic Preserve (AP) because additional bridge piers would be required. In addition, widening of the existing bridges would require the acquisition of approximately 250 businesses that would result in substantial socioeconomic impacts.

- During the review of the DEIS, the NMFS suggested the examination of an additional alternative that would combine the widening of the existing bridges (at Port St. Lucie Boulevard and Prima Vista Boulevard) with the Multimodal and TSM alternatives. A two tier analysis was performed that examined widening Prima Vista Boulevard and Port St. Lucie Boulevard to eight and ten lanes, respectively, in combination with a Multimodal and TSM alternative. The analysis showed that, even with these improvements, the Port St. Lucie Boulevard Bridge would still be over capacity. In addition, widening of the bridges would result in the same socioeconomic and environmental impacts discussed above. Thus, this alternative was rejected.
- A cable-stayed bridge (suggested by the USACE was evaluated as an option to completely span the wetlands and aquatic habitat of the AP and SPSP. This type of bridge was determined to be feasible, but was rejected because: it would not avoid impacts to these resources; it would create substantial visual impacts in the residential community; the cost would be 2.5 to 3 times more than conventional bridge construction; and it must be closed to traffic during high winds.
- The USACE, USFWS, and the NMFS recommended that a tunnel alternative be considered to avoid impacts to the wetlands and aquatic habitat of the AP and the SPSP. A *Tunnel Concept Report* was prepared (**Appendix G**), which examined an alternative that would build a pair of tunnels under the SPSP and the AP. Any alignment within the project area could have been examined, but a straight alignment under the NFSLR was considered to be the most feasible in terms of engineering constraints and cost. Thus, the approximate alignment of Alternative 1C was chosen for the evaluation rather than the curved and less direct alignments of the other build alternatives. Based on this analysis, it was concluded that construction of a tunnel would be feasible. However, this alternative was rejected because it would not avoid impacts to the SPSP, essential fish habitat, and wetlands because of geometric requirements at the eastern terminus at U.S. 1. To avoid impacts to the SPSP, U.S.1 would need to be realigned 1,600 feet to the east resulting in a substantial number of additional business and residential relocations. In addition, a tunnel would likely involve intrusive construction techniques for soil stabilization and it could have unanticipated construction impacts (heave, settlement, and impacts on groundwater and wells). A tunnel would cost 7 to 8 times more than a bridge. If U.S. 1 were realigned, costs would be even higher.
- During the review of the DEIS, the USACE suggested the tunnel alternative be reconsidered with an alignment along Alternative 1F or 6B because the eastern terminus could come to grade within upland habitat (to avoid wetland impacts, although the area contains wetlands and uplands). Based on this analysis, it was concluded that construction of a tunnel along Alternative 1F[8] would be feasible. However, this alternative was rejected because it would not avoid impacts to the SPSP, essential fish habitat, and wetlands because of geometric requirements at the eastern terminus at U.S. 1 (a tunnel would have a wider typical section than a roadway). To avoid impacts to the natural environment, the tunnel could be shifted north but this would result in 17 to 18 additional residential relocations in La Buona Vita. As with the tunnel alternative along the Alternative 1C alignment, it would have the same intrusive construction techniques for soil stabilization, unanticipated construction impacts, and increased costs as described for the tunnel alternative along Alternative 1C.

[8] Alternatives 1F and 6B have the same alignment on the eastern side of the NFSLR. Alternative 1F was chosen for this analysis because it would have fewer social impacts on the west side of the NFSLR.

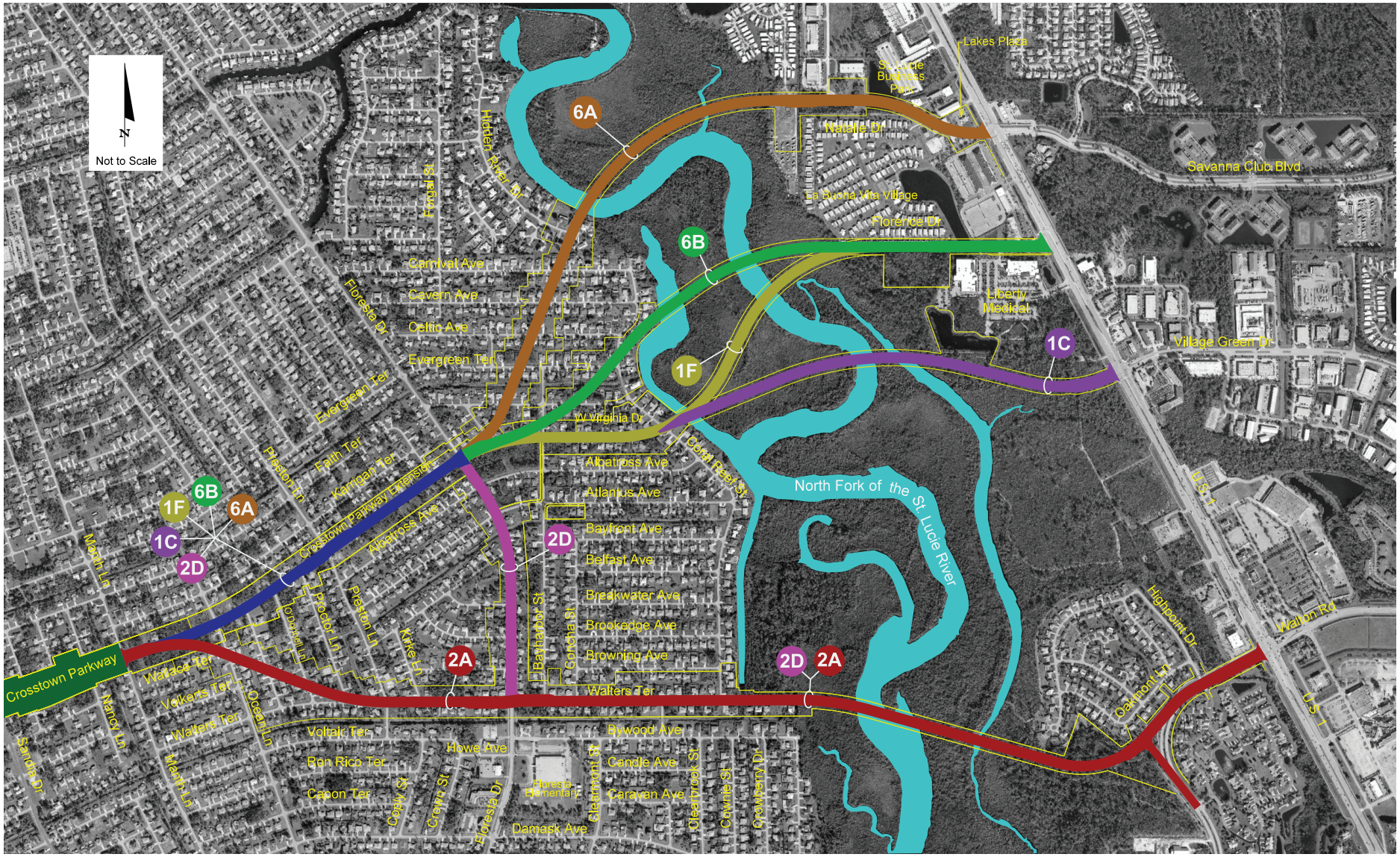
- A proposal to construct a double-deck bridge over the NFSLR was evaluated in an effort to reduce the footprint of a new bridge. This option was eliminated because, compared to a single-deck bridge, it would have: larger engineering design structural elements; additional impacts in the SPSP and the AP due to the reconstructed structure; more residential and business relocations at the bridge termini; more shading impacts (a taller bridge would result in a wider shadow north of the bridge during the winter months); and higher construction costs.
- Grade-separated flyover ramps at U.S. 1 and Port St. Lucie Boulevard have been discussed by the City since 1998. This alternative was rejected because the ramps would address level of service only at this intersection and would not address the forecasted capacity deficiencies of the existing roadway network.

After evaluating and eliminating these additional alternatives, the No Build Alternative, the TSM Alternative, the Multimodal Alternative, and six build alternatives remained for consideration. All build alternatives include a bridge over the NFSLR and the typical sections for the approach roadways and bridge would be the same for all build alternatives. The six build alternatives are shown in **Figure 1.3**. Typical sections are the same for each build alternative and are depicted in Section 1.6.1 (Description of the Preferred Alternative). The six build alternatives considered were:

- Alternative 2A – Connects Crosstown Parkway via Walters Terrace west of the NFSLR to Veterans Memorial Parkway (formerly known as Midport Road) east of the NFSLR, and ultimately connects with U.S. 1 at the intersection of Walton Road;
- Alternative 2D – Extends Crosstown Parkway along West Virginia Drive to Floresta Drive, then connects to Walters Terrace via Floresta Drive. Traffic would be required to make a right turn and a left turn at the two intersections along Floresta Drive to make the connection to U.S. 1;
- Alternative 1C – Extends Crosstown Parkway along West Virginia Drive west of the NFSLR to the existing intersection of U.S. 1 and Village Green Drive;
- Alternative 1F – Extends Crosstown Parkway along West Virginia Drive, then curves northeast to connect with U.S. 1 at a new intersection between Village Green Drive and Savanna Club Boulevard;
- Alternative 6B – Similar to Alternative 1F, this alternative extends Crosstown Parkway along West Virginia Drive to Floresta Drive. However, it curves northeast beginning at Floresta Drive, and crosses the NFSLR north of Alternative 1F. It connects with U.S. 1 at a new intersection between Village Green Drive and Savanna Club Boulevard; and
- Alternative 6A – Extends Crosstown Parkway along West Virginia Drive to Floresta Drive. From there it curves north and then east across the NFSLR to the existing intersection of U.S. 1 and Savanna Club Boulevard.

1.4 Comparison of the Alternatives Considered

The impacts resulting from implementation of each build alternative and the No Build Alternative are disclosed in Section 5.0 (Environmental Consequences), which documents the scientific and analytical basis for comparing the impacts of the build and No Build alternatives, including the considerations of direct and indirect effects. Relevant baseline data and anticipated impacts were developed based on recommendations during the ETDM Programming Screen and guidance from the *PD&E Manual*. The concerns of the agencies and the public were also incorporated in the development of the purpose and need for the project and the development of the project alternatives. **Table 1.1** presents a summary of the quantifiable impacts for each of the alternatives. A summary of the advantages and disadvantages of the salient factors of each alternative is presented in this section.



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Build Alternatives

Figure 1.3

Table 1.1 Alternatives Evaluation Matrix

	2008 BASE YEAR	2037 NO BUILD	BUILD ALTERNATIVES					
			2A	2D	1C (Preferred Alternative)	1F	6B	6A
TRAFFIC								
Daily Traffic Crossing the River			DESIGN YEAR (2037)					
Prima Vista Blvd	38,350	48,400	27,300	27,700	23,000	17,000	17,000	22,300
Crosstown Pkwy	N/A	N/A	59,700	57,100	62,300	64,600	64,600	59,700
Port St. Lucie Blvd	66,330	89,600	68,600	70,200	71,000	73,700	73,700	75,300
Total Daily Volumes (V)	104,680	138,000	155,600	155,000	156,300	155,300	155,300	157,300
Total Capacity (C)	89,200	89,200	142,700	142,700	142,700	142,700	142,700	142,700
Total V/C	**1.17**	**1.55**	**1.09**	**1.09**	**1.10**	**1.09**	**1.09**	**1.10**
Traffic Volume Exceeding Capacity	15,480	48,800	12,900	12,300	13,600	12,600	12,600	14,600
Travel Time (min) to St. Lucie Medical Center								
From Prima Vista Blvd and Bayshore Blvd	12.6	17.6	14.2	14.1	14.2	13.8	13.8	14.2
From Crosstown Pkwy and Bayshore Blvd	N/A	19.5	12.9	14.4	12.9	9.9	9.9	12.4
From Port St. Lucie Blvd and Bayshore Blvd	8.3	14.0	9.0	9.0	9.1	9.3	9.3	9.5
Alternatives Operation Analysis Issues								
Crosstown Parkway segments at LOS E or F	N/A	N/A	Yes	Yes	No	No	No	No
U.S. 1 segments at LOS E or F	N/A	Yes	Yes	No	No	Yes	Yes	No
U.S. 1 traffic progression negatively impacted	N/A	Yes	Yes	No	No	Yes	Yes	No
Negatively impacted travel time to Medical Center	N/A	Yes	No	No	No	No	No	No
Prima Vista Blvd and U.S. 1 intersection at LOS E or F	N/A	Yes	No	No	No	No	No	No
Crosstown Parkway and U.S. 1 intersection at LOS E or F	N/A	N/A	Yes	Yes	No	No	No	No
Port St. Lucie and U.S. 1 intersection at LOS E or F	N/A	Yes	No	No	No	Yes	Yes	Yes
Alternatives Access Management Issue								
U.S. 1 signal spacing and coordination with vacant properties	N/A	No	No	No	No	Yes	Yes	No
Number of Negative Operational Issues Identified	N/A	5	4	2	0	4	4	1
SOCIAL ENVIRONMENT								
Direct Residential Property Impacts								
Residential Relocations		0	141	137	65	89	100	85
Previous Residential Purchases now Vacant		0	4	33	35	35	34	33
Vacant Parcels		0	37	61	40	40	40	40
Total Residential Impacts		0	182	231	140	164	174	158
Commercial Impacts								
Commercial Relocations		0	1	0	0	12	12	10
Vacant Commercial		0	0	0	0	2	2	2
Total Commercial Impacts			1	0	0	14	14	12
Community Facilities Impacts								
Community Facilities (non-Section 4(f) resources) Directly Affected		0	0	0	0	0	0	0
Community Facilities Indirectly Affected		0	1	1	0	0	0	0
NATURAL ENVIRONMENT (EXCLUDES RESIDENTIAL LOTS)								
Wetlands (Essential Fish Habitat; acres)								
Direct Impacts (1)			7.64	7.64	10.10 (6.83)	9.02	8.0	7.69
Temporary Impacts			0.09	0.09	0.24 (0.24)	0.08	0.06	0.07
Total Functional Loss (2)			7.44	7.44	11.00 (8.34)	8.67	7.37	7.64
Uplands (acres)								
Direct Impacts			7.51	7.51	3.95 (2.96)	2.99	1.80	0.15
Temporary Impacts			0.03	0.03	0.03 (0.05)	0.01	0.01	0.01
Section 4(f) Resources (use, acres) (3)								
Savannas Preserve State Park			5.33	5.33	2.21 (2.14)	4.27	2.83	0.00
NFSLR Aquatic Preserve (also SSL)			0.02	0.02	0.02 (0.02)	0.01	0.01	0.01
Kiwanis Park			0.00	1.06	0.00	0.00	0.00	0.00
Total Section 4(f) Resources			5.35	6.41	2.23 (2.16)	4.28	2.84	0.01
Listed Species								
Potential for Listed Species Occurrence			High	High	High	Moderate	Moderate	Moderate
Species with determinations of "May Affect, but Not Likely to Adversely Affect" (4)			4	4	4	4	4	4
Species with determinations of "Likely to Adversely Affect"			0	0	0	0	0	0
NOISE								
Residential Impacts								
Impacted Receptors			33	39	10	51	44	42
Impacted Receptors Benefited with Noise Barrier			29	24	10	40	32	18
CONTAMINATION (Risk level indicators degree to which contamination is likely to affect project design, cost or schedule)								
Number of Sites								
Known Contamination Sites within Footprint			0	0	0	0	0	0
High-risk within or near footprint			1	1	0	0	0	1
Medium-risk within or near footprint			1	1	2	1	1	1
COSTS								
Estimated Costs (millions, 2009 dollars)								
Design (10% of bridge plus roadway construction)			$9.77	$9.92	$10.40	$7.48	$6.46	$6.53
Right of Way			$23.6	$28.8	$18.6	$21.4	$24.4	$30.9
Utility Relocations			$6.0	$6.8	$4.7	$5.9	$5.5	$5.3
Roadway Construction			$14.8	$16.2	$14.7	$13.2	$12.6	$13.3
Bridge Construction			$83.0	$83.0	$89.3	$61.6	$52.0	$52.0
Construction Engineering Inspection (CEI) (15% of bridge plus roadway construction)			$14.66	$14.88	$15.60	$11.22	$9.69	$9.80
Mitigation Cost (5)			$8.2	$8.2	$8.2	$8.2	$8.2	$8.2
Total Estimated Cost			$160.03	$167.80	$161.50	$129.00	$118.85	$126.03
PROJECT LENGTH								
Total Project Length (miles)			2.19	2.64	1.96	1.96	1.92	2.06
Total Bridge Length (miles)			0.71	0.71	0.76	0.52	0.50	0.44

(1) Acres of impact shown in parentheses for the Preferred Alternative are those impacts after the bridge typical section was reduced to 103 feet wide.
(2) Total wetland functional loss includes direct and indirect (secondary) impacts.
(3) Impacts are considered differently depending on the regulation or permitting guidance (NEPA, Section 401(b)(1) Guidelines, or Section 4(f). A "use" defined under Section 4(f) is not necessarily the same as an impact evaluated under NEPA (for example, only lands permanently incorporated into a transportation facility are considered a "use" under Section 4(f); shading of wetland and/or upland resources is not. This table presents the quantified use (acres) as defined under Section 4(f), which may include placement of fill for the bridge approaches, right of way to be acquired, placement of fill at the locations of the bridge piers, and construction and excavation of stormwater pond sites. Temporary occupancies have been determined to be so minimal as to not constitute a use and are not included.
(4) The USFWS and the NMFS have concurred with the "effects determinations" for the species under their respective jurisdictions.
(5) Mitigation costs have been negotiated to be the same for each build alternative.

1.4.1 No Build Alternative

Under the No Build Alternative, no bridge would be constructed; however, other planned roadway improvements contained in the 2035 RLRTP plans would still be constructed. Although no bridge would be constructed, this alternative would have impacts associated with increased congestion on the existing Port St. Lucie Boulevard and Prima Vista Boulevard bridges and area roadways. Additionally, the No Build Alternative would be inconsistent with the adopted City Comprehensive Plan and the adopted Transportation Planning Organization Regional Long Range Transportation Plan [see Summary of Advantages and Disadvantages (No Build)]. This alternative does not meet the project purpose and need.

Summary of Advantages and Disadvantages (No Build)

- No impacts to the continuity of neighborhood roads would occur.
- Community cohesion of the residential communities within the study area would remain unchanged.
- No changes to any area roadways would be made (except for planned improvements).
- No residential relocations or business displacements would be required.
- No reduction in tax base would occur due to the removal of residential and commercial properties from the tax rolls.
- No new noise impacts would be created within established communities.
- No visual changes would occur for boaters using the NFSLR or for residents within visual range of a newly constructed bridge, roadway, or stormwater ponds.
- No impacts would occur to wetlands, uplands, essential fish habitat, or Section 4(f) resources within the NFSLR and adjacent upland habitats.
- No impacts would occur to the listed plant and animal species within these natural habitats.
- Benefits of the Proprietary and Regulatory Mitigation Plans would not be realized.
- No costs would be incurred by federal, state, City, or service entities due to construction, right of way acquisition, mitigation, or utility relocations.
- It would not provide needed east-west capacity across the NFSLR.
- No traffic would be diverted from either the Port St. Lucie Boulevard or Prima Vista Boulevard bridges, which are congested today and are forecasted to be even more congested in the future.
- Traffic congestion on the major roadways within the area would get worse, causing a significant portion of the roadway network to operate at Level of Service (LOS) E or LOS F during the peak rush hours; even if other planned roadway improvements are constructed.
- The NFSLR would continue to provide a barrier to intermodal, pedestrian, and non-vehicular traffic.
- It could result in a potentially negative effect on air quality (local, not regional) due to current or future traffic congestion.
- Emergency evacuation routes would not be improved for areas east of the NFSLR.
- It could require expenditure of funds to widen other area roadways to meet forecasted traffic demand.
- It would be inconsistent with the adopted City Comprehensive Plan and the adopted Transportation Planning Organization Regional Long Range Transportation Plan.

1.4.2 Comparison of Build Alternatives

1.4.2.1 Impacts and Considerations Common to all Build Alternatives

The six build alternatives vary in the type and amount of impacts on the human and natural environment. Several factors are common to all build alternatives, including the Preferred Alternative, and are discussed in this section.

1.4.2.1.1 Social and Economic Impacts (All Build Alternatives)

- The demographic character of the project area would not change appreciably due to the implementation of any of the build alternatives, including the Preferred Alternative.
- None of the build alternatives, including the Preferred Alternative, would have an appreciable effect on land use changes because most vacant lands classified for residential and commercial uses are already platted. These vacant parcels would be developed (or not) according to market factors that would not be influenced by the implementation of any of the build alternatives, including the Preferred Alternative. Because the SPSP lands are classified as conservation lands, none of the build alternatives, including the Preferred Alternative, would result in land use changes within the State Park.
- All build alternatives, including the Preferred Alternative, would enhance regional mobility and safety for all forms of transportation (the build alternatives differ in mobility and safety on the local level)
- Increased connectivity would improve safety for emergency evacuations of areas east of the NFSLR.
- All build alternatives, including the Preferred Alternative, would improve emergency response times compared to the No Build condition. However, of the build alternatives, Alternative 2D is anticipated to have the least favorable improvement in response times.
- It is anticipated that the economic conditions within the project area (and the County) would continue to be determined by external regional and national factors.
- The selection of any of the build alternatives, including the Preferred Alternative, would initially reduce the tax revenue from the residential and commercial properties required for right of way. However, it is anticipated that any of the build alternatives would enhance the economic growth of the tax base, resulting in a long-term net gain.
- None of the build alternatives, including the Preferred Alternative, would be anticipated to have an effect on residential property values based on a comparison of current residential property values directly abutting existing roadway corridors and property values one or two blocks away from those corridors.

1.4.2.1.2 Cultural Resource Impacts (All Build Alternatives)

FHWA, after consultation with the SHPO, has determined that no sites listed or eligible for listing on The National Register of Historic Places will be impacted by the project. The project, therefore, has no effect on any such properties[9].

1.4.2.1.3 Natural and Physical Resource Impacts (All Build Alternatives)

- All build alternatives, including the Preferred Alternative, would cross the NFSLR, which is designated as an Outstanding Florida Water and as the NFSLR Aquatic Preserve.

[9] Concurrence signed by SHPO, dated May 20, 2010 and September 4, 2012 (**Appendix A**)

- A new bridge, its approaches, and a widened/new roadway would change the views of the area. Other components of the project (e.g., stormwater ponds and landscaping) would also result in visual changes.
- The project is located in an area that has been designated as an Attainment Area under the criteria provided in the Clean Air Act (CAA). All build alternatives, including the Preferred Alternative, would have a small, but beneficial effect on regional air quality because there would be less congestion and associated emissions.
- Water quality impacts from any of the build alternatives, including the Preferred Alternative, on the NFSLR, or any of its receiving waters would be negligible because all build alternatives would adhere to state and regional regulatory criteria for stormwater collection and treatment.
- All build alternatives, including the Preferred Alternative, have a similar potential to introduce litter and trash into the NFSLR from passing vehicular traffic.
- All build alternatives, including the Preferred Alternative, would bridge the floodplain as well as channels of the NFSLR and/or Evans Creek. Floodplain impacts among the six build alternatives, including the Preferred Alternative, are anticipated to be similar and negligible. This will be confirmed in the *Bridge Hydraulics Report* prepared during the detailed design phase and with further coordination with the SFWMD and the Federal Emergency Management Agency.
- A contamination screening assessment was performed using readily available agency records and field reconnaissance. The screening was performed for all possible contaminants, including but not limited to, petroleum from underground tanks, solvents from dry cleaners, metals from landfills, and pesticides from spills. The contamination screening found several sites near the build alternatives (but not within the footprint of any alternative) that have petroleum contamination, some of which could migrate through surface water or groundwater. A site-specific contamination assessment including soil and groundwater testing will be performed during the design phase to further define the nature and extent of contamination and, if necessary, to evaluate avoidance or remediation options. The site-specific contamination assessment is a project commitment [Section 9.0 (Commitments and Recommendations)].
- Any of the build alternatives "May Affect but Not Likely to Adversely Affect" four endangered or threatened species (smalltooth sawfish, eastern indigo snake, wood stork, and the West Indian manatee). The USFWS and NMFS have concurred with these determinations.[10]
- All build alternatives, including the Preferred Alternative, could affect wildlife passage; would introduce light trespass, noise, colonization by invasive or weedy species; and could have an effect on fire management policies.

1.4.2.1.4 Compensatory Mitigation (All Build Alternatives)

- A noise barrier analysis concluded that noise abatement would be appropriate for all build alternatives and locations for noise barriers have been proposed. The need and public desire for noise barriers would be evaluated during the design phase. Noise abatement measures would be identified, contingent upon engineering and safety factors, reasonable cost analysis considerations, land use compatibility, and public input. The examination of noise abatement measures is a project commitment [Section 9.0 (Commitments and Recommendations)].

[10] Concurrence letter from USFWS regarding eastern indigo snake, wood stork, and the West Indian manatee, dated October 15, 2012 (**Appendix A**) and concurrence letter from NMFS regarding smalltooth sawfish, dated January 4, 2013 (**Appendix A**).

- The specific design elements to address unavoidable visual impacts of a build alternative would be included in a Bridge Development Report. During the detailed design phase, certain visual design elements would be investigated (bridge design elements, landscaping, or other shielding techniques). These elements would also be identified through public input. Community input during the design phase is a project commitment [Section 9.0 (Commitments and Recommendations)].
- A Proprietary[11] Mitigation Plan and a Regulatory[12] Mitigation Plan were developed specifically for this project. The Proprietary Mitigation Plan provides compensatory mitigation for obtaining an easement to cross state-owned lands [Section 6.7 (Compensatory Mitigation for Section 4(f) Uses)]. The Regulatory Mitigation Plan provides compensatory mitigation for unavoidable direct and indirect impacts to wetlands, Sovereignty Submerged Lands (SSL), and navigable and non-navigable waters, as required under federal and state regulations [Section 7.3.4.1 (Details of the Regulatory Mitigation Plan)]. The cost of the mitigation plan is $8.2 million, excluding the cost of the acquisition of property to convey to the state, and is the same for all build alternatives, including the Preferred Alternative.

1.4.2.1.5 Cost Estimates (All Build Alternatives)

- Seven primary cost components were estimated in accordance with current FDOT Estimates Office policies and procedures.
- Bridge construction costs were estimated using the cost of recent local top down construction methods or construction methods from temporary platforms, trestles, or other similar methods, discussions with local contractors familiar with this type of construction, the statewide bridge construction cost ranges per square foot of structure contained in the FDOT Office of Policy Planning Bridge Costs updated for April 2009, and discussions with local FDOT District 4 Engineers reviewing the various factors.

Cost Component	BUILD ALTERNATIVE					
	2A	2D	1C	1F	6B	6A
Design	$9.77	$9.92	$10.40	$7.48	$6.46	$6.53
Right of Way	$23.6	$28.8	$18.6	$21.4	$24.4	$30.9
Utility Relocations	$6.0	$6.8	$4.7	$5.9	$5.5	$5.3
Roadway Construction	$14.8	$16.2	$14.7	$13.2	$12.6	$13.3
Bridge Construction	$83.0	$83.0	$89.3	$61.6	$52.0	$52.0
CEI	$14.66	$14.88	$15.60	$11.22	$9.69	$9.80
Mitigation	$8.2	$8.2	$8.2	$8.2	$8.2	$8.2
Total Estimated Cost (Millions)	**$160.03**	**$167.8**	**$161.5**	**$128.98**	**$118.85**	**$126.03**

- Precast slab unit and standard Florida I-Beam (FIB) prestressed concrete girder configurations are the basis for the cost comparison of alternatives.[13]
- Right of way cost estimates were based upon research obtained from a review of public records and information provided by City staff. Formal appraisals will be obtained to ensure compliance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Public Law 91-646 as amended by Public Law 100-17); commonly referred to as the Uniform Act, and state rules and regulations.

[11] "Proprietary" refers to publicly-owned lands. These lands are held in trust by the State of Florida for all residents and are intended to be managed for the public benefit.

[12] "Regulatory" refers to a type of governmental power, which allows an entity of the government to regulate private property as well as publicly-owned lands for the public good. The regulatory powers that the government agency has over private and public lands are granted by the state and by federal statutes and regulations.

[13] Other bridge options were evaluated to bridge the AP, such as longer Prestressed Concrete Florida I-Beams, Prestressed Post Tensioned (Spliced) Beams, or a Concrete Segmental Bridge, as discussed in Section 6.0 (Section 4(f) Evaluation).

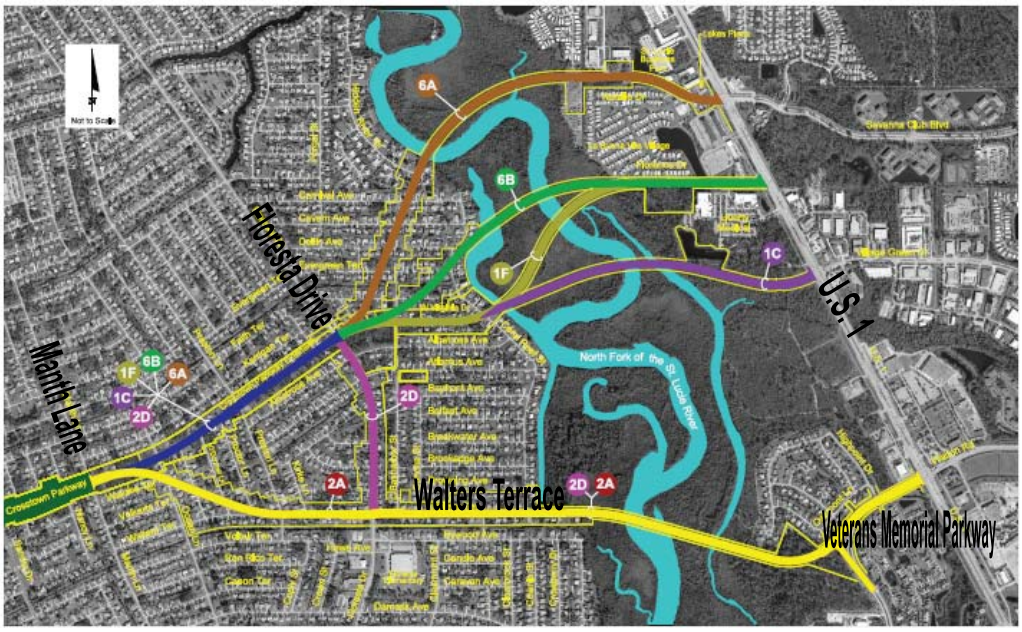
- The Utility Assessment Package identified the major utility owners within the proposed rights of way. Potential costs were estimated for relocating utilities affected by each build alternative.
- Mitigation costs are based on a Memorandum of Agreement and a Memorandum of Understanding between the City and the Florida Department of Environmental Protection (FDEP). The costs of the Proprietary and the Regulatory Mitigation Plans were negotiated to be the same for all build alternatives, including the Preferred Alternative.

1.4.2.2 Impacts Specific to Each Build Alternative

The general types of impacts anticipated (e.g., wetlands, social, etc.) vary among the six build alternatives. A comparison of the advantages and disadvantages of the salient factors of each alternative is summarized for each build alternative.

1.4.2.2.1 Alternative 2A

Alternative 2A would connect Crosstown Parkway via Walters Terrace west of the NFSLR to Veterans Memorial Parkway (formerly known as Midport Road) east of the NFSLR, and ultimately connect with U.S. 1 at the existing signalized intersection with Veterans Memorial Parkway/Walton Road. This alternative would create a new signalized intersection where the Crosstown Parkway Extension intersects Veterans Memorial Parkway, approximately 1,500 feet west of U.S. 1. This alternative would also widen Walters Terrace from a 2-lane undivided to a 6-lane divided urban roadway; thus, the existing 2-way stop control at the Walters Terrace and Floresta Drive intersection would also require signalization.



Summary of Advantages and Disadvantages (Alternative 2A)

- It would provide a continuous east-west connection extending from west of I-95 to U.S. 1. In concept, it is consistent with the adopted 2035 RLRTP for the St. Lucie Transportation Planning Organization (TPO), the adopted TPO Transportation Improvement Program (TIP), the City Local Government Comprehensive Plan, and the State TIP.
- It would provide needed east-west capacity across the NFSLR allowing planned development to occur.
- Comparing the forecasted 2037 daily traffic between Alternative 2A and the No Build Alternative reveals that the proposed bridge would divert over 23 percent of the traffic [21,000 Annual Average Daily Traffic (AADT)] off of Port St. Lucie Boulevard and nearly 44 percent of the traffic (21,100 AADT) off of Prima Vista Boulevard. Because this alternative is geographically the closest to Port St. Lucie Boulevard, it would provide the highest traffic diversion from Port St. Lucie Boulevard compared to all other build alternatives, relieving congestion along that roadway. It would provide the second least amount of diversion off of Prima Vista Boulevard compared to all other build alternatives.
- It would provide overall congestion relief within the area compared to the No Build Alternative (the least benefit of all the build alternatives).
- It would provide a direct connection from areas west of the NFSLR to the Downtown Community Redevelopment Area (CRA) Overlay District.
- It would use the existing Walters Terrace and Veterans Memorial Parkway for most of its alignment, reducing continuity and cohesion impacts to residential communities.
- It would tie into an existing intersection and not introduce a new signalized intersection along U.S. 1.
- The design (2037) year intersection analysis for Alternative 2A revealed that the intersection of the Crosstown Parkway Extension (2A) with Veterans Memorial Parkway would operate at Level of Service (LOS) E during the AM peak hour, and the intersection of the Crosstown Parkway Extension (2A) with U.S. 1 would operate at LOS E during the PM peak hour with very heavy eastbound right-turn and northbound left-turn movements.
- The intersection of the proposed Crosstown Parkway Extension (2A) with U.S. 1 is projected to have a high number of eastbound right-turn and northbound left-turn movements creating long lines of cars (traffic queues) for these movements at this intersection. This would create operational challenges based on the proximity of the U.S. 1 intersection with the Veterans Memorial Parkway intersection (approximately 1,400 feet west of U.S. 1).
- It would disrupt the largest number of continuous roadways in the area, affecting local mobility. It would traverse diagonally across four residential streets near the western terminus. However, the route would not have the level of disruption to local community cohesion compared to Alternatives 2D, 1F, 6B, and 6A because of an existing canal that already provides an existing barrier to north-south mobility, nor would this route isolate any neighborhoods.
- It would cause disruption to the community near the eastern terminus at U.S. 1 due to an additional new access connection into the community.
- No community facilities (non-Section 4(f) resources) would be directly affected. However, it would indirectly affect Floresta Elementary School by requiring the closure of Bywood Avenue to/from Floresta Drive, requiring an adjustment of access to/from the school (same as Alternative 2D).
- It would require the highest number of residential relocations (purchase of 141 occupied residential properties); it would displace one business; and it would have the second highest number of total parcels impacted (182). Of the 141 occupied residential properties that would be acquired, it is estimated based on census data, that 32 minority households (22.70 percent of the total), 32 disabled households (22.70 percent of the total), and 23 elderly households (16.31 percent of the total), would

need to be relocated. Approximately 0.11 percent of the City's tax base and 0.06 percent of the County's tax base would be removed.

- This alternative would have visual and noise impacts for residents along Buckingham Terrace and Oakmont Lane (same as Alternative 2D).
- It would impact 33 noise receptors, four of which would still be impacted after abatement.
- It would have the lowest direct impact (7.64 acres) on wetlands (7.44 functional loss units, which includes indirect impacts) and the most total impact on uplands (7.51 acres). These impacts are the same as Alternative 2D.
- It would have the third highest total impact on essential fish habitat (9.90 acres), which includes 7.64 acres of palustrine and mangrove habitats (same as wetlands) and 2.26 acres of open water habitat (primarily shading). These impacts are the same as Alternative 2D.
- For purposes of Section 4(f), no bridging option is feasible that would avoid the use of the AP. Thus, it would use lands from the AP (0.02 acres) and the SPSP (5.34 acres); the same as Alternative 2D. It would not use lands from Kiwanis Park.

1.4.2.2.2 Alternative 2D

Alternative 2D would extend Crosstown Parkway along West Virginia Drive to Floresta Drive. From there it would turn south along Floresta Drive and connect to Walters Terrace. Then, Alternative 2D (similar to Alternative 2A) would travel eastward via Walters Terrace across the NFSLR to Veterans Memorial Parkway east of the NFSLR, and ultimately connect with U.S. 1 at the existing signalized intersection with Veterans Memorial Parkway/Walton Road. Similar to Alternative 2A, this alternative would create a new signalized intersection at Veterans Memorial Parkway and would create two new signalized intersections along Floresta Drive at Alternative 2D/West Virginia Drive and Alternative 2D/Walters Terrace, where traffic would be required to make right-turn and left-turn movements.

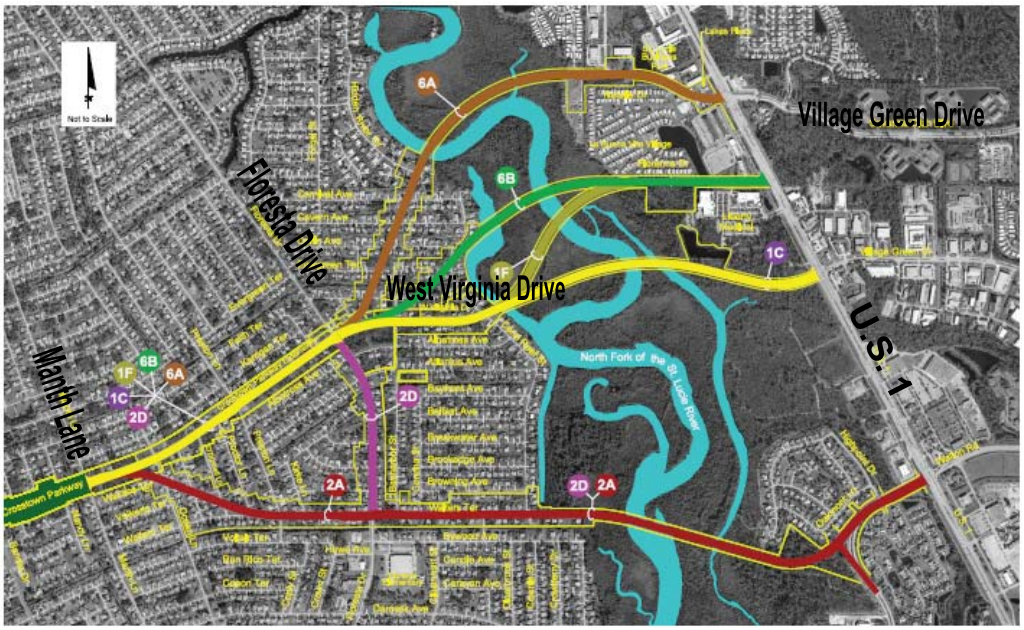
Summary of Advantages and Disadvantages (Alternative 2D)

- It would provide an east-west connection extending from west of I-95 to U.S. 1. It would provide a connection (but less direct than Alternative 2A) from areas west of the NFSLR to the Downtown CRA Overlay District. In concept, it is consistent with the adopted 2035 RLRTP for the St. Lucie Transportation Planning Organization (TPO), the adopted TPO Transportation Improvement Program (TIP), the City Local Government Comprehensive Plan, and the State TIP.
- It would provide needed east-west capacity across the NFSLR allowing for planned development to take place. However, it would not provide a direct connection to U.S. 1 because traffic would first be routed along Floresta Drive prior to connecting to Walters Terrace and then crossing the NFSLR to U.S. 1 (in a zigzag pattern).
- Comparing the forecasted 2037 daily traffic between Alternative 2D and the No Build Alternative reveals that the proposed bridge would divert nearly 22 percent of the traffic (19,400 AADT) off of Port St. Lucie Boulevard. Alternative 2D would also divert nearly 43 percent of the traffic (20,700 AADT) off of Prima Vista Boulevard. Because this alternative is geographically the closest to Port St. Lucie Boulevard (like Alternative 2A), it would provide the second highest traffic diversion from Port St. Lucie Boulevard, relieving existing and forecasted congestion along that roadway (although the bridge crossing would be at the same location as Alternative 2A, the indirect routing results in less traffic diversion from Port St. Lucie Boulevard). It would provide the least amount of traffic diversion from Prima Vista Boulevard compared to all other build alternatives.
- It would provide overall congestion relief within the area (compared to the No Build Alternative), but only a little better than Alternative 2A. Since less volume is diverted to the proposed Crosstown Parkway Extension, its intersection with U.S. 1 operates marginally better.
- It would not cut diagonally across any established residential streets, minimizing impacts to local cohesion and mobility for the remaining community.
- It would tie into an existing intersection, and not introduce a new signalized intersection along U.S. 1.
- The intersection of the proposed Crosstown Parkway Extension (2D) with U.S. 1 is projected to have a high number of eastbound right-turn and northbound left-turn movements creating long lines of cars (traffic queues) for these movements at this intersection. This would create operational challenges based on the proximity of the U.S. 1 intersection with the Veterans Memorial Parkway intersection (approximately 1,400 feet west of U.S. 1).
- No businesses would be displaced.
- No community facilities (non-Section 4(f) resources) would be directly affected. However, it would have an indirect effect on Floresta Elementary School. This alternative would require the closure of Bywood Avenue to/from Floresta Drive, requiring an adjustment of access to/from the school (same as Alternative 2A).
- It would have the second highest number of residential relocations (purchase of 137 occupied residential properties) and the highest number of total parcels impacted (231). Of the 137 occupied residential properties to be acquired, it is estimated based on the census data, that 35 minority households (25.55 percent of the total), 32 disabled households (23.36 percent of the total), and 22 elderly households (16.06 percent of the total), would need to be relocated. It would remove approximately 0.10 percent of the City's tax base and 0.06 percent of the County's tax base.
- It would have a substantial impact to local community cohesion, mobility, and safety by partially isolating the neighborhood east of Floresta Drive between West Virginia Drive and Walters Terrace.
- It would have visual and noise impacts for residents along Buckingham Terrace and Oakmont Lane (same as Alternative 2A).

- It would impact 39 noise receptors, 15 of which would still be impacted after abatement.
- It would have the lowest direct impact (7.64 acres) on wetlands (7.44 functional loss units, which includes indirect impacts) and the most impact on uplands (7.51 total acres). These impacts are the same as Alternative 2A.
- It would have the third highest total impact on essential fish habitat (9.90 acres), which includes 7.64 acres of palustrine and mangrove habitats (same as wetlands) and 2.26 acres of open water habitat (primarily shading). These impacts are the same as Alternative 2A.
- For purposes of Section 4(f), no bridging option is feasible that would avoid the use of the AP. Thus, it would use the AP (0.02 acres) and the SPSP (5.34 acres), the same as Alternative 2A. It is the only alternative that would use lands from Kiwanis Park (1.06 acres).

1.4.2.2.3 Alternative 1C (Preferred Alternative)

Alternative 1C, the Preferred Alternative, will connect Crosstown Parkway along West Virginia Drive west of the NFSLR to the existing intersection of U.S. 1 and Village Green Drive. The proposed Crosstown Parkway connection will create the fourth leg (west leg) at this existing intersection. This alternative will require signalization of the existing West Virginia Drive and Floresta Drive 2-way stop control intersection. Of the six build alternatives, it is the shortest distance between the existing intersection of Manth Lane and U.S. 1.



Summary of Advantages and Disadvantages (Alternative 1C - Preferred Alternative)

- It will provide needed east-west capacity across the NFSLR allowing for planned development to take place. This alternative is consistent with (and depicted in) the adopted 2035 RLRTP for the St. Lucie Transportation Planning Organization (TPO), the adopted TPO Transportation Improvement Program (TIP), the City Local Government Comprehensive Plan, and the State TIP.

- Comparing the forecasted 2037 daily traffic between Alternative 1C and the No Build Alternative reveals that it will divert nearly 21 percent of the traffic (18,600 AADT) off of Port St. Lucie Boulevard and over 52 percent of the traffic (25,400 AADT) from Prima Vista Boulevard. This alternative is centrally located between Port St. Lucie Boulevard and Prima Vista Boulevard, and will divert a moderate amount of traffic from each route. It will divert the third highest total number of trips from the existing bridges (Alternatives 1F and 6B divert more traffic).
- It will provide the best overall intersection congestion relief within the area (compared to the No Build Alternative) of all the build alternatives.
- It will be aligned along the existing West Virginia Drive on the west side of the NFSLR, and it will not pass through or near any residential or commercial areas on the east side of the NFSLR; resulting in the least amount of impact to roadway continuity and community cohesion of all build alternatives. On the east side of the NFSLR, it will connect to an existing intersection and will not introduce a new signalized intersection along U.S. 1.
- It is supported by the public as the Locally Preferred Alternative.
- No businesses will be displaced, the least of all build alternatives (tied with Alternative 2D) and no community facilities (non-Section 4(f) resources) will be directly or indirectly affected (same as Alternatives 1F, 6B, and 6A).
- This alternative will require the relocation of 65 improved residential properties. Of the 65 occupied residential properties to be acquired, it is estimated, based on the census data, that 21 minority households (32.31 percent of the total), 17 disabled households (26.15 percent of the total), and 10 elderly households (15.38 percent of the total), will need to be relocated. It will remove approximately 0.04 percent of the City's tax base and 0.02 percent of the County's tax base.
- It will impact ten noise receptors but all could be mitigated with reasonable and feasible noise barriers.
- It will have unavoidable direct impact (6.83 acres) on wetlands (8.34 functional loss units, which includes indirect impacts)[14] and unavoidable upland impacts (2.96 total acres).
- It will have unavoidable impact on essential fish habitat, which includes 6.83 acres of palustrine and mangrove habitat (same as wetlands) and 1.15 acres of open water habitat (primarily shading).
- For purposes of Section 4(f), Alternative 1C will use the AP (0.02 acres). It will also use lands from the SPSP (2.14 acres). It will not use lands from Kiwanis Park. This is the only alternative that will affect Halpatiokee Canoe and Nature Trail, which is the only land-based access to the AP (motorized boat access will remain unaffected). Halpatiokee Canoe and Nature Trail is the only land-based public access to the portion of the SPSP west of U.S. 1 (this alternative will have no effect on the portion of the SPSP east of U.S. 1). Under the Proprietary Mitigation Plan, Halpatiokee will be relocated 1,000 feet to the south and will provide an improved facility with a direct connection to Evans Creek.

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[14] Following the selection of Alternative 1C as the Preferred Alternative, additional avoidance and minimization measures were developed through coordination with the cooperating and involved agencies. This reduced unavoidable impacts of the Preferred Alternative to wetlands, listed species habitats, Section 4(f) use, and essential fish habitat and is described in Section 1.6.1 (Description of the Preferred Alternative).

1.4.2.2.4 Alternative 1F

Alternative 1F would extend Crosstown Parkway along West Virginia Drive, then curve northeast across the NFSLR, bending eastward along the southern boundary of La Buona Vita, and connect with U.S. 1 at a new 3-leg intersection between Village Green Drive and Savanna Club Boulevard. This alternative would require signalization of the existing West Virginia Drive and Floresta Drive 2-way stop control intersection. The new signalized intersection at U.S. 1 would require a variance to the FDOT Access Management standards identified in Chapter 14-97 Florida Administrative Code (FAC), which requires signal spacing along U.S. 1 no closer than one-half mile.

Summary of Advantages and Disadvantages (Alternative 1F)

- Alternative 1F would provide a continuous east-west connection extending from west of I-95 to U.S. 1. In concept, it is consistent with the adopted 2035 RLRTP for the St. Lucie Transportation Planning Organization (TPO), the adopted TPO Transportation Improvement Program (TIP), the City Local Government Comprehensive Plan, and the State TIP.
- It would provide needed east-west capacity across the NFSLR accommodating planned development.
- Comparing the forecasted 2037 daily traffic between Alternative 1F and the No Build Alternative reveals that it would provide the highest degree of traffic diversion (65 percent or 31,400 AADT) from Prima Vista Boulevard of all build alternatives (but the second least diversion of traffic off of Port St. Lucie Boulevard at 18 percent or 15,900 AADT). These forecasts are the same as Alternative 6B.
- It would provide an overall improvement in roadway LOS within the study area compared to the No Build Alternative (similar to Alternative 2D, but better than Alternative 2A).
- It would be aligned along the existing West Virginia Drive on the west side of the NFSLR, minimizing the impact to roadway continuity and community cohesion west of the NFSLR (cohesion impacts would occur east of the NFSLR).
- This alternative would provide the second least amount of traffic diversion from Port St. Lucie Boulevard compared to all other build alternatives.

- It would introduce a new signalized intersection along U.S. 1 between Village Green Drive and Savanna Club Boulevard. This would require an Access Management Variance from the FDOT, and would eliminate the northbound left-turn direct access into Liberty Medical from U.S. 1 (same as Alternative 6B).
- No community facilities (non-Section 4(f) resources) would be directly or indirectly affected.
- It would require 89 occupied residential relocations. Of the 89 occupied residential properties to be acquired, it is estimated based on census data, that 26 minority households (29.21 percent of the total), 24 disabled households (26.97 percent of the total), and 16 elderly households (17.98 percent of the total), would need to be relocated. It would displace the highest number of occupied businesses (12) along U.S. 1 (same as Alternative 6B). It would remove approximately 0.03 percent of the City's tax base and 0.03 percent of the County's tax base.
- This alternative would cause substantial visual, noise, and cohesion impacts to the La Buona Vita community east of the NFSLR, including 21 relocations. In addition, because this is a cooperative community, all costs to the community must be borne by a smaller number of remaining residents (same as Alternative 6B).
- It would impact 51 noise receptors, the highest number of impacted receptors of all build alternatives, and would leave 11 receptors impacted by noise after abatement.
- It would have the second highest direct impact (9.02 acres) on wetlands (8.67 functional loss units, which includes indirect impacts) and the third lowest total upland impacts (2.99 acres) compared to the other build alternatives.
- It would have the second highest impact on essential fish habitat (10.19 acres), which includes 9.02 a**c**res of palustrine and mangrove habitats (same as wetlands) and 1.17 acres of open water habitat (primarily shading).
- For purposes of Section 4(f), Alternative 1F would use the AP (0.01 acres) and would require the use of the SPSP (4.49 acres). It would not use lands from Kiwanis Park.

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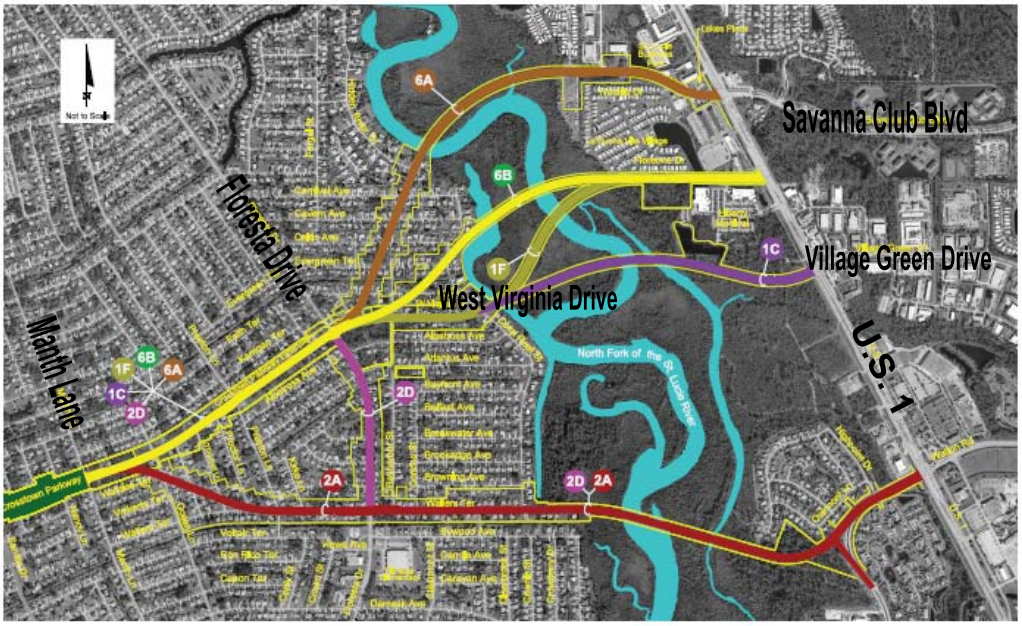
1.4.2.2.5 Alternative 6B

Alternative 6B would extend Crosstown Parkway along West Virginia Drive. East of Floresta Drive, this alternative would cut northeast across the neighborhood north of West Virginia Drive. It then would curve eastward across the NFSLR and proceed along the southern boundary of La Buona Vita, and connect with U.S. 1 at a new 3-leg intersection between Village Green Drive and Savanna Club Boulevard (the same terminus as Alternative 1F). From a traffic perspective this alternative is equivalent to Alternative 1F.



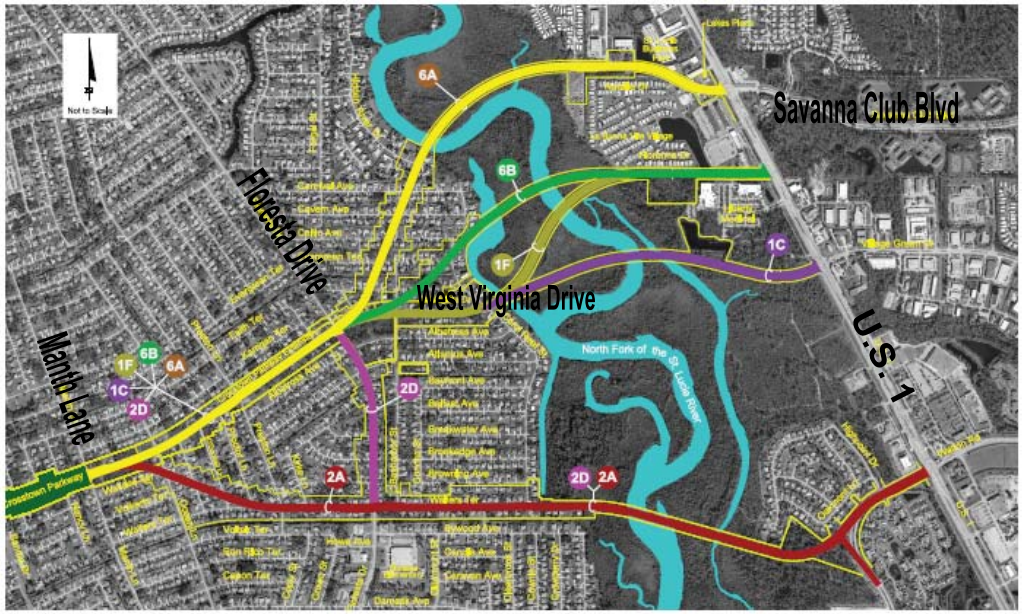
Summary of Advantages and Disadvantages (Alternative 6B)

- Alternative 6B would provide a continuous east-west connection extending from west of I-95 to U.S. 1. In concept, it is consistent with the adopted 2035 RLRTP for the St. Lucie Transportation Planning Organization (TPO), the adopted TPO Transportation Improvement Program (TIP), the City Local Government Comprehensive Plan, and the State TIP.
- It would provide needed east-west capacity across the NFSLR allowing for planned development to take place.
- Comparing the forecasted 2037 daily traffic between Alternative 6B and the No Build Alternative reveals that it would provide the highest degree of traffic diversion (65 percent or 31,400 AADT) from Prima Vista Boulevard of all build alternatives (but the second least diversion of traffic off of Port St. Lucie Boulevard at 18 percent or 15,900 AADT). These forecasts are the same as Alternative 1F. This alternative would provide the second least amount of traffic diversion from Port St. Lucie Boulevard compared to all other build alternatives.
- It would provide an overall improvement in roadway LOS within the study area compared to the No Build Alternative (similar to Alternative 2D, but better than Alternative 2A).
- It would be partially aligned along the existing West Virginia Drive on the west side of the NFSLR, minimizing some of the impact to roadway continuity and community cohesion west of the NFSLR (but more impacts than Alternative 1F, and cohesion impacts would occur east of the NFSLR).

- It would introduce a new signalized intersection along U.S. 1 between Village Green Drive and Savanna Club Boulevard. This would require an Access Management Variance from the FDOT, and would eliminate the northbound left-turn direct access into Liberty Medical from U.S. 1 (same as Alternative 1F).
- It would require 100 occupied residential relocations and it would displace the highest number of occupied businesses (12) along U.S. 1 (same as Alternative 1F). Of the 100 residential properties to be acquired, it is estimated based on the census data, that 34 minority households (34.0 percent of the total), 29 disabled households (29.0 percent of the total), and 18 elderly households (18.0 percent of the total), would need to be relocated. Alternative 6B would remove approximately 0.05 percent of the City's tax base and 0.05 percent of the County's tax base.
- This alternative would cause substantial visual, noise, and cohesion impacts to La Buona Vita east of the NFSLR, including 21 relocations. In addition, because this is a cooperative community, all costs to the community must be borne by a smaller number of remaining residents (same as Alternative 1F).
- It would impact 44 noise receptors and leave 12 receptors impacted by noise after abatement.
- It would have the third least direct impact (8.0 acres) on wetlands (7.37 functional loss units, which includes indirect impacts) and the second lowest total upland impacts (1.80 acres) compared to the other build alternatives.
- It would have the second lowest impact on essential fish habitat (9.78 acres), which includes 8.0 acres of palustrine and mangrove habitats (same as wetlands) and 1.78 acres of open water habitat (primarily shading).
- For purposes of Section 4(f), Alternative 6B would use the AP (0.01 acres). It would use lands from the SPSP (4.59 acres). It would not use lands from Kiwanis Park.

1.4.2.2.6 Alternative 6A

Alternative 6A would extend Crosstown Parkway along West Virginia Drive to Floresta Drive. It then would curve northeast across the residential neighborhood and the NFLSR, then curve eastward to the existing intersection of U.S. 1 and Savanna Club Boulevard. This alternative would require signalization of the existing West Virginia Drive and Floresta Drive intersection.



Summary of Advantages and Disadvantages (Alternative 6A)

- Alternative 6A would provide a continuous east-west connection extending from west of I-95 to U.S. 1. In concept, it is consistent with the adopted 2035 RLRTP for the St. Lucie Transportation Planning Organization (TPO), the adopted TPO Transportation Improvement Program (TIP), the City Local Government Comprehensive Plan, and the State TIP.
- It would provide needed east-west capacity across the NFSLR allowing for planned development to take place.
- Comparing the forecasted 2037 daily traffic between Alternative 6A and the No Build Alternative reveals that the proposed bridge would divert nearly 54 percent of the traffic (26,100 AADT) off of Prima Vista Boulevard (less traffic than Alternatives 1F and 6B). Alternative 6A would also divert traffic off of Port St. Lucie Boulevard (nearly 16 percent of the traffic or 14,300 AADT). It would be located geographically the furthest north of all build alternatives and would provide the least amount of traffic diversion from Port St. Lucie Boulevard, compared to all other build alternatives.
- It would provide congestion relief within the area (compared to the No Build Alternative).
- It would tie into an existing intersection and would not introduce a new signalized intersection along U.S. 1.
- It would have substantial social impacts on both sides of the NFSLR. It would diagonally cross six residential streets west of the NFSLR in a southwest to northeast direction, resulting in substantial impacts to local community cohesion and mobility.
- This alternative would require relocation of the access driveway to/from La Buona Vita to maintain access. The driveway is currently the west leg of an intersection at U.S. 1 (Savanna Club Boulevard is the east leg). The proposed Crosstown Parkway Extension (6A) would become the west leg of this intersection. The existing access to La Buona Vita would be relocated to Mary Ann Lane, off of the proposed Crosstown Parkway Extension (6A), at the rear of the community. The new access road would change traffic flows within the community, increasing noise and visual impacts at the vicinity of the new access road.
- It would result in visual and noise impacts for residents west of the NFSLR as it traverses through the neighborhood.
- It would require 85 occupied residential relocations and it would displace ten occupied businesses along U.S. 1. Of the 85 occupied residential properties to be acquired, it is estimated based on the census data, that 31 minority households (36.47 percent of the total), 24 disabled households (28.24 percent of the total), and 12 elderly households (14.12 percent of the total), would need to be relocated. It would remove approximately 0.06 percent of the City's tax base and 0.06 percent of the County's tax base.
- It would impact 42 noise receptors and leave 24 receptors impacted by noise after abatement (the most impacted non-benefited receptors of all build alternatives).
- It would have the third highest direct impact (7.69 acres) on wetlands (7.64 functional loss units, which includes indirect impacts) and the least total upland impacts (0.15 acres) compared to the other build alternatives.
- It would have the lowest impact on essential fish habitat (8.47 acres), which includes 7.69 acres of palustrine and mangrove habitats (same as wetlands) and 0.78 acres of open water habitat (primarily shading).
- For purposes of Section 4(f), Alternative 6A would use 0.01 acres of the AP and would avoid all use of the SPSP.

1.5 Areas of Controversy and Unresolved Issues

During the ETDM process, the USFWS, FDEP, and the Florida Fish and Wildlife Conservation Commission (FWC) stated their opposition to Alternatives 2A, 2D, 1C, 1F, and 6B by assigning an ETDM *Dispute Resolution* Degree of Effect[15] for the categories of Special Designations, Wetlands, and Wildlife and Habitat. Through coordination efforts with these agencies, the FWC and FDEP removed their *Dispute Resolution* designations and reduced their Degree of Effect to *Substantial*. The USFWS maintained the *Dispute Resolution* for all build alternatives except for Alternative 6A (Alternative 4 in ETDM, **Appendix D**). USFWS objection was based on its belief that "it is inappropriate to construct a new transportation facility within protected conservation lands, and that such an action is contrary to the reason that the lands were originally acquired." USFWS also believed that the use of conservation lands for a transportation facility would be contrary to its goal of maintaining adequate habitat for fish and wildlife in the region. The City continued to coordinate with the USFWS on this issue. Based on this coordination and the compensatory mitigation plan developed for the project, the USFWS resolved the dispute and reduced the Degree of Effect to *Substantial*.[16]

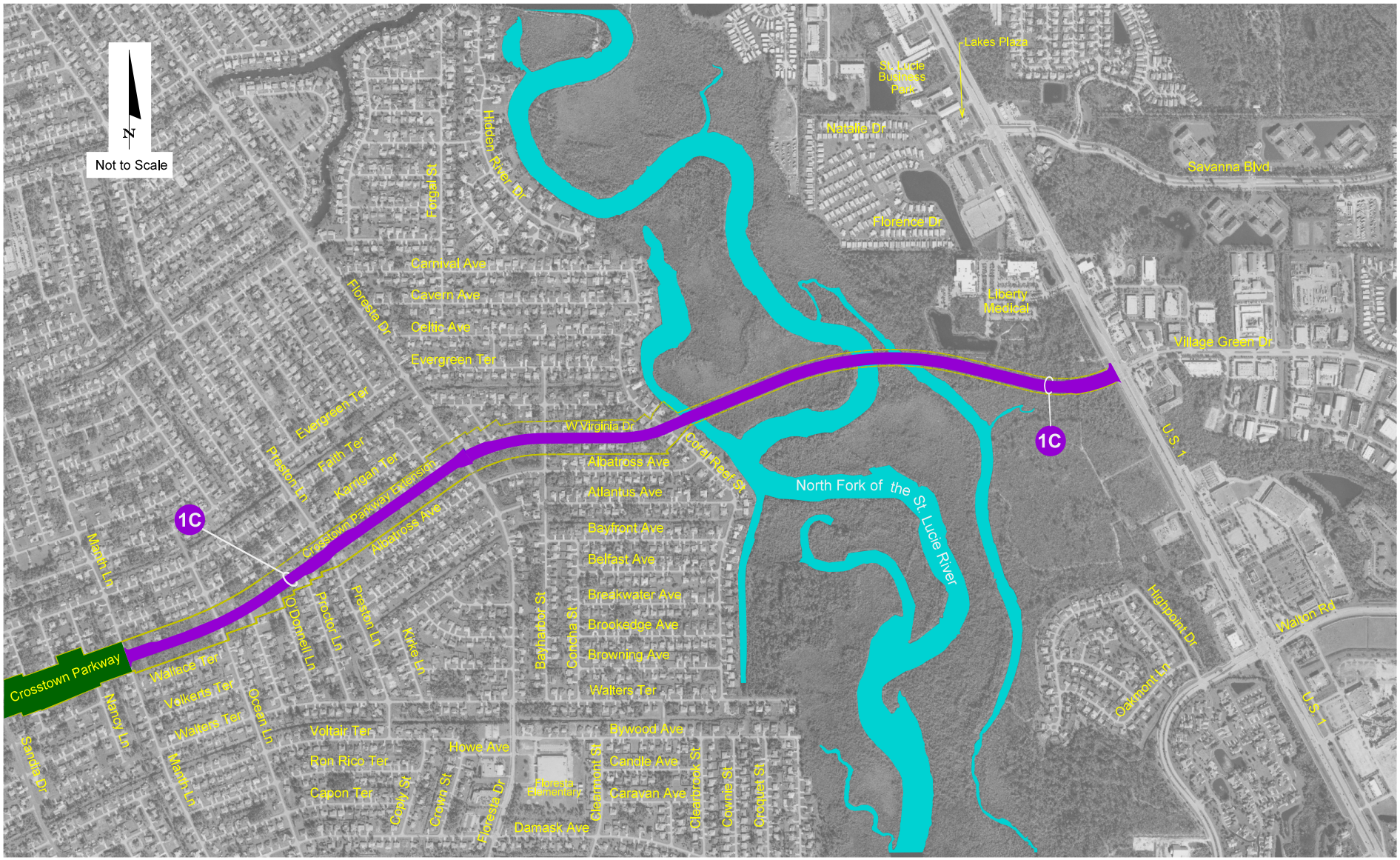
Forty-nine parcels were acquired subsequent to November 2000, which is the established federalization date of the project. Federal regulations were not followed when the City acquired the properties. The FDOT completed (August 2012) remediation for those properties (31 residentially improved lots and 18 vacant residential lots) within the Preferred Alternative alignment to bring them into compliance with the Uniform Act. The remediation plan is documented in the technical support document titled *Right of Way Remediation Plan – Implementation; Crosstown Parkway Extension*.

1.6 Preferred Alternative

1.6.1 Description of the Preferred Alternative

Alternative 1C is the Preferred Alternative. It travels northeast along West Virginia Drive then crosses SPSP and the NFSLR, bending slightly southward to its eventual terminus with U.S. 1, and its intersection with Village Green Drive at its eastern terminus (**Figure 1.4**). This connection at the eastern terminus creates a fourth leg of this existing intersection, which is now stop controlled for two legs of the intersection. Signalization will be required at the existing West Virginia Drive and Floresta Drive 2-way stop controlled intersection. The typical sections for the Preferred Alternative are shown on **Figures 1.5** through **1.7**. The typical section west of Floresta Drive is a suburban cross section consisting of three 12-foot travel lanes and a 14-foot outside shoulder, including a 5-foot paved designated bicycle lane in each direction. Travel lanes are separated by a 32-foot raised landscaped median. The right of way width for the typical section is 330 feet to the west bridge approach. Consistent with the Crosstown Parkway to the west, a wide area of green space with a wide pedestrian pathway will be constructed on both sides of the parkway within the right of way. East of Floresta Drive, as the roadway approaches the NFSLR, the cross section will transition to an urban section and narrow to match the bridge cross section.

[15] A Degree of Effect is an estimation of a proposed project's effects for various technical and community issues. These degrees of effect provide an overview of key issues identified for a proposed project. Each issue is summarized in **Appendix D**.
[16] Email from USFWS, dated November 28, 2012 (**Appendix A**).



1.27

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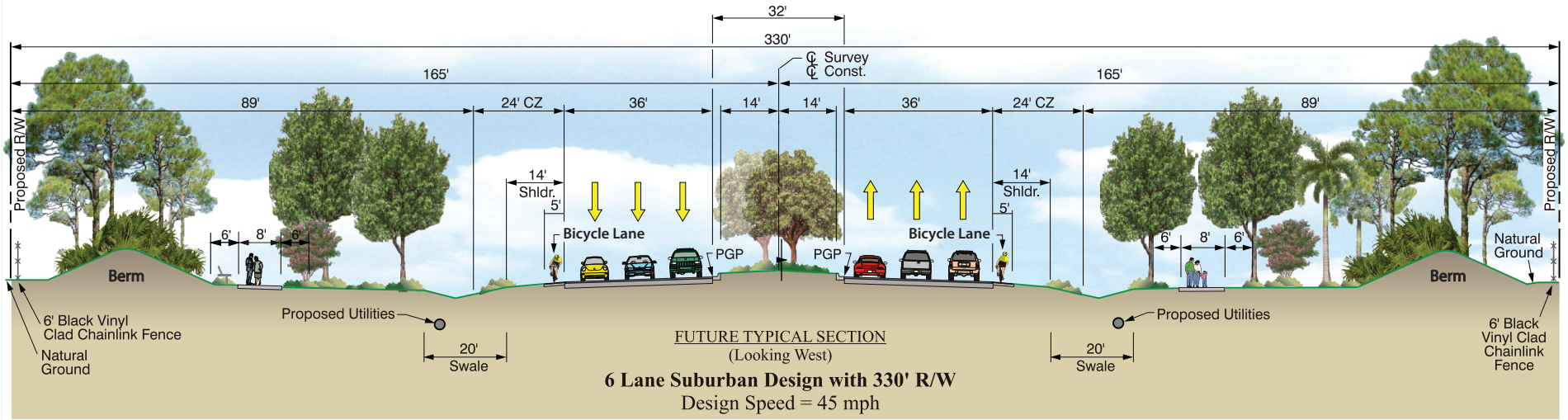
Preferred Alternative

Figure 1.4



FUTURE TYPICAL SECTION
(Looking West)

6 Lane Suburban Design with 330' R/W

Design Speed = 45 mph

NOTE: Typical section between Manth Lane to West of the River.

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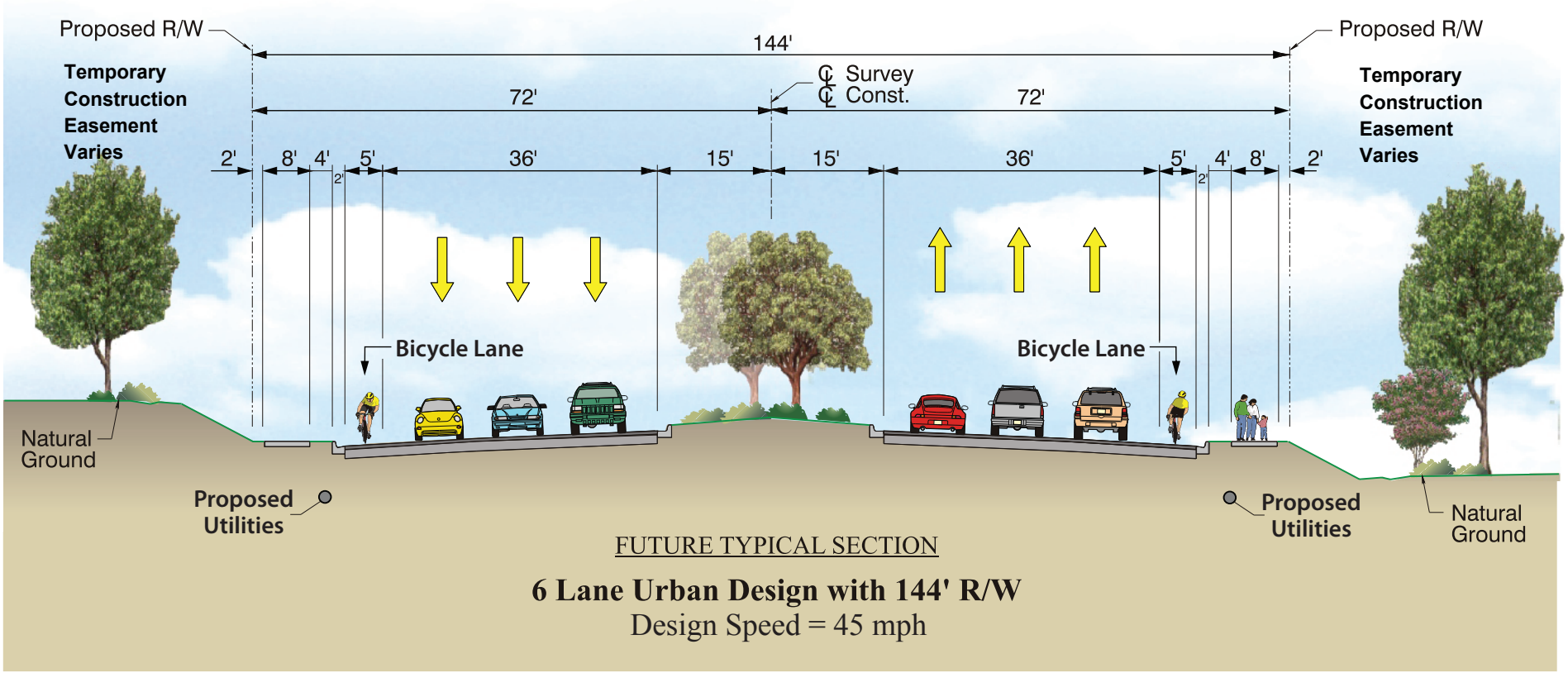
Suburban Typical Section

Figure 1.5



FUTURE TYPICAL SECTION

6 Lane Urban Design with 144' R/W

Design Speed = 45 mph

NOTE: Typical section between East of the River to US-1.

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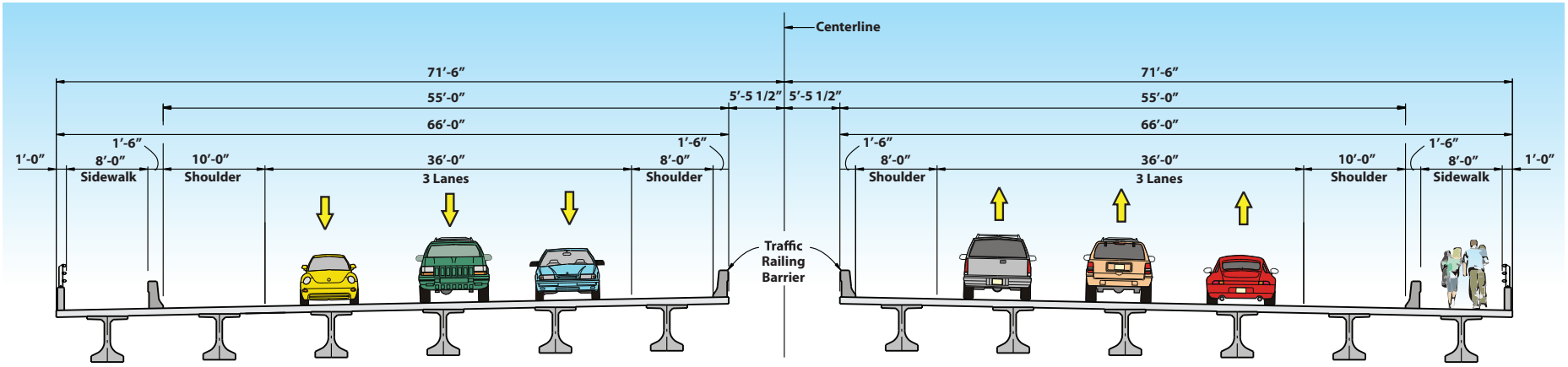
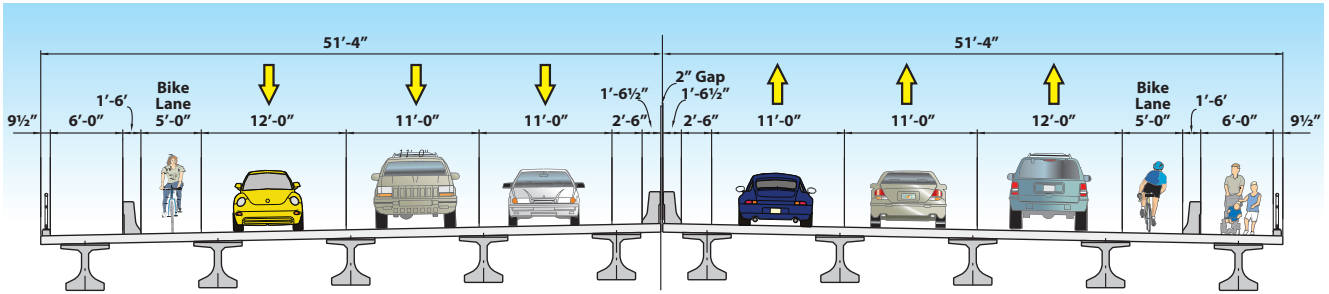
Urban Typical Section

Figure 1.6



ORIGINAL TYPICAL BRIDGE SECTION
OVER NORTH FORK ST. LUCIE RIVER
MAIN CHANNEL SPAN



FINAL REDUCED BRIDGE TYPICAL SECTION
OVER NORTH FORK ST. LUCIE RIVER
MAIN CHANNEL SPAN

Note: After selection of the Preferred Alternative (Alternative 1C), coordination continued with NMFS, USFWS and USACE to further reduce impacts associated with the bridge. Through this coordination effort, the bridge typical section for the Preferred Alternative was reduced to approximately 103 feet.

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Bridge Typical Sections

Figure 1.7

The bridge typical section was originally 143 feet from outside edge of railing to outside edge of railing (**Figure 1.7**), and consisted of parallel "twin" structures, each consisting of three 12-foot lanes, a 1-foot 6½-inch inside traffic barrier, a 1-foot 6-inch outside traffic barrier between the outside shoulder and sidewalk, an 8-foot inside shoulder, a 10-foot outside shoulder, and an 8-foot sidewalk with a 1-foot pedestrian railing. A 10-foot 11-inch gap between the two structures was included to allow inspection of the under deck and superstructure using a truck mounted mechanical arm platform (to avoid ground-based inspection equipment). Following the selection of the Preferred Alternative, additional avoidance and minimization measures were developed through coordination with NMFS, USACE, and USFWS (July to September 2012) to reduce the impacts of the Preferred Alternative to wetlands, listed species habitats, Section 4(f) use, and essential fish habitat. The bridge typical section was reduced from 143 feet to 103 feet, and now consists of twin structures, each consisting of two 11-foot travel lanes, one 12-foot outside travel lane, a 5-foot outside shoulder/bicycle lane, a 2-foot 6-inch inside shoulder, a 1-foot 6 ½-inch inside traffic barrier, a 1-foot 6-inch outside traffic barrier between the sidewalk and outside shoulder/bicycle lane, a 6-foot sidewalk, a 9 ½-inch pedestrian railing, and a 2-inch gap between the structures (**Figure 1.7**).

By reducing the typical sections of the bridge crossing the AP and the SPSP from 143 feet wide to 103 feet wide and by assessing shading impacts based on the physical width of the bridge, as opposed to the 157-foot right of way width, wetland impacts decreased from 10.1 acres to 6.83 acres, a reduction of 3.27 acres. The reduced typical section also resulted in a reduction in wetland functional loss from 11.26 to 8.34 functional loss units (includes direct and indirect impacts), a reduction of 2.92 functional loss units (the indirect functional losses were calculated from the edge of the bridge, rather than from the right of way line). Upland impacts were reduced from 6.45 acres to 2.96 acres, a reduction of 3.49 acres of impact.[17] For purposes of Section 4(f), the use of Section 4(f) properties in the SPSP decreased from 2.21 acres to 2.14 acres, a reduction of 0.07 acres while the use of the AP was unchanged (0.02 acre).

East of the NFSLR, the proposed typical section consists of an urban 6-lane cross section with three 12-foot travel lanes and a 5-foot designated bicycle lane in each direction, separated by a 30-foot raised grassed median. The right of way width for this typical section is 144 feet.

1.6.2 Reasons for the Selection of the Preferred Alternative

The Council on Environmental Quality guidance requires all federal agencies to identify a recommended alternative. As the lead agency, the FHWA is ultimately responsible for the adequacy of the EIS, the selection of a Preferred Alternative, and the Record of Decision (ROD). In compliance with the CEQ guidance, information has been gathered for the *Corridor Report*, the *Alternatives Report,* the technical support documents, and the NEPA study process, including this EIS.

The City, as the project sponsor, can express a preference through the selection of a Locally Preferred Alternative (LPA). The LPA selection process is described in Section 3.3.1 (Preferred Alternative). On November 17, 2011, senior management and staff from the City, the FDOT, and the TPO agreed upon Alternative 1C as the LPA for extending the existing Crosstown Parkway.

[17] As the impervious area on the bridge was reduced, stormwater control requirements also decreased. An assessment of the stormwater runoff calculations determined that the stormwater pond on the Liberty Medical property has sufficient capacity to accommodate the additional runoff from the bridge and does not require expansion. This resulted in a reduction of upland habitat impacts (2.47 acres).

The decision to select Alternative 1C as the LPA was based on:

- Information in the Crosstown Parkway Extension DEIS (Notice of Availability published in the *Federal Register* on August 19, 2011);
- An evaluation process and criteria developed by the City in coordination with FDOT and FHWA;
- Agency and public comments; and
- Professional judgment (through the City's EIS consultant evaluation of the LPA).

The selection of Alternative 1C as the Preferred Alternative was based on its ability to fulfill the project purpose and need while minimizing environmental impacts, costs, and technical factors. Alternative 1C received the highest score in the alternative ranking process that was used to select the LPA [Section 3.3.1 (Selection of the Preferred Alternative)]. Overall, Alternative 1C was selected because it does the best job of meeting the project purpose and need, results in the least amount of community impacts, requires the least amount of residential relocations, requires no business relocations, has the least noise impacts, and was preferred by the public in all public meetings. A summary of the advantages and disadvantages of Alternative 1C is included in Section 1.4.2.2.3 [Alternative 1C (Preferred Alternative)].

On January 23, 2012, the Port St. Lucie City Council adopted the selection of Alternative 1C as the LPA for the extension of the Crosstown Parkway from Manth Lane to U.S. 1 (Resolution 12-R18; **Appendix E**). Based on this information and after coordination with the public, stakeholders, and the regulatory and cooperating agencies, Alternative 1C has been identified as the Preferred Alternative based on its ability to fulfill the project purpose and need while minimizing environmental impacts, costs, and technical factors.

1.6.3 Environmental Impacts of the Preferred Alternative

A full disclosure and documentation of the anticipated impacts resulting from the implementation of the Preferred Alternative are contained in Section 5.0 (Environmental Consequences) and summarized in Section 3.0 (Alternatives Including Proposed Action). Relevant baseline data and anticipated impacts were developed based on information provided during the ETDM process and guidance from the *PD&E Manual*. The concerns of the agencies and the public were also incorporated in the development of the purpose and need for the project and the development of the project alternatives. This section contains a summary of the specific and substantive impacts that can be anticipated from the implementation of the Preferred Alternative. The full details of the analysis are contained in the applicable section of Section 5.0 (Environmental Consequences).

1.6.3.1 Social and Economic Impacts

The Preferred Alternative will require the relocation of 65 occupied residential properties. If the number of previously purchased developed properties is included (35), a total of 100 residential properties will be affected. The Preferred Alternative will be aligned along the existing West Virginia Drive on the west side of the NFSLR and it will not pass through or near any residential or commercial areas on the east side of the NFSLR. Of the 65 occupied residential properties to be acquired, it is estimated, based on Year 2010 census data, that 21 minority households (32.31 percent of the total), 17 disabled households (26.15 percent of the total), and 10 elderly households (15.38 percent of the total) will need to be relocated. No minority or low-income populations have been identified that would be adversely impacted by the Preferred Alternative. No businesses will be displaced. No community facilities (non-Section 4(f) resources) will be directly or indirectly affected. The Preferred Alternative will remove approximately 0.04 percent of the City's tax base and 0.02 percent of the County's tax base.

1.6.3.2 Physical Resource Impacts

Alternative 1C has 99 residential units, all of which were represented as noise sensitive receptors. Of these, ten receptors will be impacted by noise greater than the Noise Abatement Criteria if no noise barrier is used (impacted receptors). The noise barrier analysis revealed that all of the ten impacted receptors could be benefited by a noise barrier.

1.6.3.3 Natural Resource Impacts

As described in Section 1.6.1 (Description of the Preferred Alternative), following the selection of Alternative 1C as the Preferred Alternative, coordination with the cooperating agencies resulted in a further minimization of impacts to natural resources. Based on this coordination, the bridge typical section was reduced by 40 feet by decreasing the widths of travel lanes, shoulders, and sidewalks and by eliminating the gap between the twin bridges (**Figure 1.7**).

These measures reduced the shading impacts over terrestrial habitats by 3.23 acres (9.36 to 6.13 acres). The pilings are located beneath the bridge and are not considered an additional impact (all area beneath the bridge is considered a direct impact). As the impervious area on the bridge was reduced, stormwater control requirements also decreased. An assessment of the stormwater runoff calculations determined that the stormwater pond on the Liberty Medical property has sufficient capacity to accommodate the additional runoff from the reduced bridge and does not require expansion. This resulted in 2.47 acres of reduced upland habitat impacts for the stormwater pond. The reduced bridge does not reduce the impact for the approach fill requirements because an unreduced urban typical section is needed to provide intersection geometry at U.S. 1.

Based on the reduced typical section, the Preferred Alternative will have 6.83 acres of unavoidable impacts to wetlands (8.34 functional loss units, which includes indirect impacts) and 2.96 total acres of upland impacts. It will have 6.83 acres of unavoidable impacts to essential fish habitat (same as wetlands) and 1.15 acres of impact to open water habitat (primarily due to shading).

1.6.3.4 Compensatory Mitigation

A number of avoidance and minimization measures have been incorporated into the design plans. These measures were incorporated as a result of coordination efforts as described in Section 8.0 (Comments and Coordination). These avoidance and minimization measures are detailed in Section 7.0 (Avoidance, Minimization and Compensatory Mitigation).

1.6.3.4.1 Compensatory Mitigation (Noise)

A noise barrier analysis concluded that noise abatement is feasible and reasonable for the Preferred Alternative and locations for noise barriers have been proposed. Noise abatement measures will be implemented at noise impacted locations contingent upon the following:

- Subsequent to any significant design changes, the noise analysis conducted during final design continues to support the need, feasibility, and reasonableness for providing abatement;

- Community input during the design phase supporting the types, height and locations of the noise barriers is provided to the District office; and
- An assessment of the impact of noise barriers on billboards that may be affected has already been made and no billboards were found to be blocked by noise barriers. A final determination of impacted billboards will be made based on the final design vertical and horizontal alignments. Public involvement related to billboards will occur in accordance with Section 479.25, F.S.

Public input and agency coordination during the design phase, as identified in this section, are project commitments [Section 9.0 (Commitments and Recommendations)].

1.6.3.4.2 Compensatory Mitigation (Visual and Aesthetics)

Through analysis, potential visual impacts were identified. A low-level bridge that meets the minimum-required bridge height (per USCG clearance requirements) will minimize visual impacts of the bridge structure. The City will elicit input from the community during one or more City Council meetings to identify opportunities to enhance the community by incorporating amenities, design standards for lighting, visual aspects of the bridge, and landscaping for the project. Public input during the design phase is a project commitment [Section 9.0 (Commitments and Recommendations)].

1.6.3.4.3 Compensatory Mitigation (Wetlands, Wildlife Habitat, and Essential Fish Habitat)

Throughout the project development process and as documented in the EIS, the City has evaluated the project through a sequence of avoidance, minimization, and then, compensation for unavoidable impacts, in accordance with mitigation requirements for wetland impacts pursuant to the Clean Water Act Section 404(b)(1) Guidelines (40 CFR, Part 230), USACE Regulations (33 CFR, Part 332), and associated guidance.

During the ETDM process for the EIS, the USFWS assigned a degree of effect of "Dispute Resolution" for the categories of Special Designations, Wetlands, and Wildlife and Habitat. Subsequently, the Secretary of the FDEP suggested the City initiate a Conceptual Environmental Resource Permit (Conceptual ERP) concurrently with the EIS process. The purpose of the Conceptual ERP was to provide resource agencies with technical data and analyses necessary to evaluate the project. To secure an easement to cross state-owned lands and to resolve the dispute resolution, the City pursued an ambitious comprehensive mitigation plan that included a number of mitigation projects within the NFSLR watershed that were developed specifically for this project. This included a Proprietary Mitigation Plan described in Section 1.6.8 (Section 4(f) Evaluation) and a Regulatory[18] Mitigation Plan that is described in this section. The Regulatory Mitigation Plan provides compensatory mitigation for unavoidable direct and indirect impacts to wetlands (same as essential fish habitat), SSL, and navigable and non-navigable waters, as required under federal and state regulations. The Proprietary Mitigation Plan provides compensatory mitigation for obtaining an easement to cross state-owned lands and resulted in the resolution of the dispute.[19]

[18] "Regulatory" refers to a type of governmental power, which allows an entity of the government to regulate private property as well as publicly-owned lands for the public good. The regulatory powers that the government agency has over private and public lands are granted by the state and by federal statutes and regulations.
[19] Email from USFWS, dated November 28, 2012 (**Appendix A**).

The Regulatory Mitigation Plan consists of using the Platt's Creek Compensatory Mitigation Site (Platt's Creek), which is being developed specifically for this project to provide compensatory mitigation for wetland impacts. The Regulatory Mitigation Plan also includes the purchase of credits at the Bear Point Mitigation Bank to provide compensatory mitigation for mangrove impacts. Total wetland functional loss due to the Preferred Alternative is 8.34 functional loss units, including secondary functional loss, and impacts to mangroves. Of the total credits at Platt's Creek, 11.25 functional gain units[20] will be allocated as compensatory mitigation for regulatory wetland impacts for the Crosstown Parkway Extension project. Both the SFWMD[21] and the USACE[22] have stated that this allocation will satisfy the regulatory component for any of the build alternatives, including the Preferred Alternative. The remaining functional gain units at Platt's Creek are reserved for future County projects.

Platt's Creek will be used to offset impacts to the wood stork Core Foraging Area (CFA) associated with the Preferred Alternative. A wood stork biomass calculation was completed to ensure the Platt's Creek site adequately mitigates for unavoidable impacts to CFA (**Appendix M**). The 49.34 acres of wetlands to be created will consist of 13.45 acres of short hydroperiod wetlands and 35.8 acres of long hydroperiod wetlands providing 11.04 kilograms (kg) and 110.54 kg of wood stork forage, respectively. Of the total created wetlands, 29.14 acres will be allocated towards the Preferred Alternative and will consist of 13.45 acres of short hydroperiod wetlands (all short hydroperiod wetlands) and 15.6 acres of long hydroperiod wetlands providing 11.04 Kg and 55.15 Kg of wood stork forage, respectively. The remaining wood stork forage is reserved for future County projects.

The Preferred Alternative will have unavoidable impacts to 0.19 acres of mangrove habitat, resulting in 0.22 functional loss units. However, under the "worst case" approach, the highest impacts to mangroves are due to Alternative 2A/2D, which resulted in a total functional loss of 0.34 units.[23] Therefore, as agreed for this project, the City will purchase 0.5 credits at the Bear Point Mitigation Bank (the freshwater wetland mitigation project at Platt's Creek will not be able to restore/create mangrove habitat). The mitigation credit requirements at the Bear Point Mitigation Bank have been determined in accordance with E-WRAP (Bear Point Mitigation Bank evaluation method). In addition, a Proximity Factor Worksheet was completed for the USACE because the Bear Point Mitigation Bank is outside of the service area for the bank (**Appendix M**). The USACE and the SFWMD have stated that the amount of credits is appropriate mitigation for mangrove losses.[24] The City has paid a reservation fee for the purchase of 0.5 credits and the balance will be paid in full when the Record of Decision is signed.[25]

[20] The functional loss calculations contained in **Appendix M** are those contained in the Conceptual Environmental Resource Permit (ERP) Application. The Conceptual ERP Application assumed a "worst case" scenario, which combined the highest amount of impact from all build alternatives. After the width of the bridge was reduced, the actual functional loss due to the Preferred Alternative (8.34 acres) is less than those calculated for the Conceptual ERP Application (11.25 acres). These acreage differences will also appear in UMAM calculations for the Conceptual ERP Application.

[21] Letter from SFWMD to the City of Port St. Lucie, dated June 9, 2010 (**Appendix M**).

[22] Letter from USACE to the City of Port St. Lucie, dated June 8, 2010 (**Appendix M**).

[23] The mitigation requirements for the Regulatory Mitigation Plans calculated through UMAM and E-WRAP during the Compensatory ERP process were based on the "worst case" representative alternative that assumed the worst case for each resource category. Thus, the acres, functional losses, and functional gains will be larger than those discussed in this EIS.

[24] Meeting minutes, dated September 21, 2010 and issued September 22, 2010 (**Appendix M**).

[25] Mitigation Bank Credit Reservation Agreement, dated May 3, 2011 (**Appendix M**).

The Regulatory Mitigation Plan has been developed in conjunction with the regulatory agencies and in accordance with UMAM and E-WRAP (Bear Point Mitigation Bank), which calculated the functional gains of the mitigation plans and balanced those gains with the functional losses of the Preferred Alternative. After the Record of Decision has been signed, Platt's Creek will be completed.

1.6.4 Wetlands Finding

Presidential Executive Order (EO) 11990 ("Protection of Wetlands") established a national policy to "avoid to the extent possible the long-term and short-term adverse impacts associated with the destruction or modification of wetlands and to avoid direct or indirect support of new construction in wetlands wherever there is a practicable alternative." In accordance with EO 11990, wetlands were given special consideration in the development and evaluation of alternatives. As discussed Section 7.0 (Avoidance, Minimization and Compensatory Mitigation), the sequencing process, as outlined in the Clean Water Act Section 404(b)(1) Guidelines (40 CFR, Part 230) has been followed to identify opportunities for avoidance, minimization, and compensatory mitigation of wetland impacts. All practicable measures were explored to avoid and minimize wetland impacts.

The complete avoidance of direct or indirect impacts to wetlands is not practicable due to the location of the identified wetlands. Following the selection of Alternative 1C as the Preferred Alternative, coordination with the cooperating agencies resulted in a further avoidance and minimization of impacts to natural resources, which resulted in a reduction of wetland impacts by 3.27 acres. Despite these efforts, the Preferred Alternative will have unavoidable direct impacts to 6.83 acres of wetlands (8.34 functional loss units, which includes direct and indirect impacts). A Regulatory Mitigation Plan was developed to provide compensatory mitigation for unavoidable direct and indirect impacts to wetlands, SSL, and navigable and non-navigable waters, as required under federal and state regulations. In addition to the Regulatory Mitigation Plan, a Proprietary Mitigation Plan was developed to provide compensatory mitigation for obtaining an easement to cross state-owned lands. Based on the above considerations, it is determined that there is no practicable alternative to the proposed construction in wetlands and that the proposed action includes all practicable measures to minimize harm to wetlands that may result from such use.

1.6.5 Floodplain Finding

Presidential Executive Order 11988, *Floodplain Management*, directs federal agencies to take action to reduce the risk of flood loss; minimize the impact of floods on human safety, health, and welfare; and restore and preserve the natural and beneficial values served by floodplains. U.S. Department of Transportation (USDOT) Order 5650.2, *Floodplain Management and Protection*, contains USDOT's policies and procedures for implementing EO 11988. Based on engineering judgment of the project design and the stormwater management system, the Preferred Alternative will have minimal effects on river hydraulics, the river floodplain, or flow patterns. Any impacts due to scour, erosion, or changes in sedimentation patterns will be minor, if any, and limited to the localized areas of the pilings. This determination will be confirmed during the design phase through analysis and further documentation in a *Bridge Hydraulics Report*, in which a detailed analysis of the river's hydraulics will enable a full assessment of strategies to avoid or minimize effects on the existing floodplain.

A conceptual level floodplain analysis was conducted for the Preferred Alternative in accordance with the requirements of EO 11998 and Federal-Aid Policy guide 23 CFR 650, Subpart A. The project area is located within the 100-year floodplain as identified on the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM) for St. Lucie County. The floodplain analysis indicates that a latitudinal floodplain encroachment of approximately 1.82 acres is associated with the Preferred Alternative. The segment of this alignment between the eastern boundary of the NFSLR and west of U.S. 1 is below the base flood elevation and encroaches into the floodplain. The Platt's Creek mitigation project will include excavation within the floodplain that will exceed the encroachment volume, fully mitigating the floodplain impacts associated with the Preferred Alternative.

The construction of the drainage structures proposed for this project will cause changes in flood stage and flood limits. These changes will not result in any significant adverse impacts on the natural and beneficial floodplain values or any significant changes in flood risk or damage. These changes have been reviewed by the appropriate regulatory authorities who have concurred with the determination that there will be no significant impacts. There will not be significant change in the potential for interruption or termination of emergency service or emergency evacuation routes. Therefore, it has been determined that this encroachment is not significant.

A regulatory floodway is also designated within the NFSLR in the vicinity of the Preferred Alternative. A regulatory floodway provides for the discharge of the base flood so the cumulative increase in water surface elevation does not exceed criteria set by the National Flood Insurance Program. The constructed bridge will be located in the regulatory floodway but will result in no change to the downstream floodplain zone or result in a reduction of the upstream floodplain zone. No modification to the base floodplain and regulatory floodways is necessary. The proposed action is consistent with the regulatory floodway.

Coordination with local officials and the Federal Emergency Management Agency[26] has been conducted in accordance with the *Additional Guidance on 23 CFR 650A* in the development of the proposed action and this coordination will continue through all future phases. Pursuant to EO 11988, *Floodplain Management*, the proposed action was determined to be within the base floodplain. Impacts associated with the encroachment has been evaluated and determined to be minimal. Therefore, the proposed action will not constitute a significant encroachment.

1.6.6 Coastal Zone Consistency

Florida's review of federal activities for consistency with the Coastal Zone Management Act (CZMA) is coordinated by the State Clearinghouse (Clearinghouse), which is part of the FDEP. Comments on the DEIS provided by state agencies were used by the Clearinghouse to make the determination on behalf of the State of Florida regarding the consistency provisions of the CZMA. The FDEP has determined this project is consistent with the Florida Coastal Zone Management Program.[27]

1.6.7 Cultural Resources

A Cultural Resource Assessment, conducted in accordance with the procedures contained in 36 CFR Part 800 and including background research and a field survey coordinated with the State Historic Preservation

[26] Record of Telephone Conversation June 18-19, 2012 (**Appendix A**).
[27] Letter from Sally B. Mann, Director of the Office of Intergovernmental Programs, dated October 14, 2011 (**Appendix A**).

Officer (SHPO), was performed for the project. No archaeological or historical sites or properties were identified, nor are any expected to be encountered during subsequent project development. The Federal Highway Administration, after consultation with the SHPO, has determined that no resources listed or eligible for listing on the National Register of Historic Places will be impacted. The SHPO coordination letters are contained in **Appendix A**.[28] SHPO has indicated that the EIS has adequately addressed the issues of historic, archaeological, and historic architectural resources.[29]

1.6.8 Section 4(f) Evaluation

Three properties located within the project area are Section 4(f) properties: North Fork St. Lucie River Aquatic Preserve (AP), the Savannas Preserve State Park (SPSP), and Kiwanis Park. A Section 4(f) evaluation was conducted to determine whether a prudent and feasible alternative existed to avoid a use of these properties [Section 6.0 (Section 4(f) Evaluation)]. The evaluation also examined if the proposed action would have a constructive use and evaluated measures to minimize harm.

Based on the discussions contained in Section 6.2 (Avoidance Alternatives), Section 6.3 (Measures to Minimize Harm), Section 6.4 (Use of Section 4(f) Properties), and Section 6.6 (Evaluation of Alternatives), no feasible and prudent alternative exists to avoid a new crossing of the NFSLR. In addition, no feasible and prudent alternative exists to completely span the AP and the SPSP. Numerous bridging options were examined to bridge the AP and the SPSP. The bridging option with a pile bent substructure is the most viable and least harmful option for crossing the AP and the SPSP. Thus, all build alternatives; including the Preferred Alternative, would use the AP and all build alternatives except Alternative 6A would use the SPSP (Alternative 6A is located north of the boundaries of the SPSP). Only Alternative 2D would use Kiwanis Park. After determining that there were no feasible and prudent avoidance alternatives, a least harm analysis was conducted. Based on that analysis, Alternatives 2D, 1F, 6B, and 6A were eliminated from further consideration. Of the two remaining alternatives (2A and 1C), Alternative 1C would result in the least overall net harm.

Following the selection of the Preferred Alternative, additional avoidance and minimization measures were developed through coordination with the resource agencies, which further reduced the use of Section 4(f) properties. Thus, all possible planning to minimize harm and mitigate for adverse impacts have been incorporated into the Preferred Alternative. Coordination has been ongoing with the Florida Department of Environmental Protection (FDEP), the agency with management authority over the AP and the SPSP. This resulted in the development of a Proprietary[30] Mitigation Plan, which provides compensatory mitigation for obtaining an easement to cross state-owned lands. Details of the Proprietary Mitigation Plan are contained in Section 6.7 (Compensatory Mitigation for Section 4(f) Uses). A Regulatory[31] Mitigation Plan was also developed for the project. The Regulatory Mitigation Plan provides compensatory mitigation for unavoidable direct and indirect impacts to wetlands, SSL, and navigable and non-navigable waters, as required under federal and state regulations. The Regulatory Mitigation Plan and the Proprietary Mitigation

[28] Concurrence signed by SHPO May 20, 2010 and September 4, 2012 (**Appendix A)**.

[29] Letter from SHPO, dated August 29, 2011 (**Appendix A**).

[30] "Proprietary" refers to publicly-owned lands. These lands are held in trust by the State of Florida for all residents and are intended to be managed for the public benefit.

[31] "Regulatory" refers to a type of governmental power, which allows an entity of the government to regulate private property as well as publicly-owned lands for the public good. The regulatory powers that the government agency has over private and public lands are granted by the state and by federal statutes and regulations.

Plan also provide ecological benefits to state-owned lands and the features that qualify them as Section 4(f) properties.

The Preferred Alternative, with the reduced bridge typical section, will use 2.14 acres of the SPSP (reduced from 2.21 acres) and it will use 0.02 acres of the AP (unchanged). It will not use lands from Kiwanis Park. It will affect Halpatiokee Canoe and Nature Trail (Halpatiokee). Halpatiokee is the only land-based public access to the portion of SPSP west of U.S. 1 (the Preferred alternative will have no effect on the portion of the SPSP east of U.S. 1 and motorized boat access will remain unaffected). The existing facility is not well-maintained, is often inundated or flooded, and involves a 0.3 mile portage to the canoe stopover dock on Evans Creek. The FDEP, the agency with management jurisdiction over this facility, has approved the relocation of Halpatiokee 1,000 feet to the south and the construction of an improved facility with a direct connection to Evans Creek.[32]

Based on the analyses contained in this Section 4(f) evaluation, unique or unusual factors are involved in the use of alternatives that avoid Section 4(f) properties, and the cost, social, economic, and environmental impacts, or community disruption resulting from such alternatives reach extraordinary magnitudes. Alternative 1C has the least net harm to Section 4(f) resources and it has been selected as the Preferred Alternative. Based on the above considerations, there is no feasible and prudent alternative to the use of land from the AP and the SPSP and the proposed action includes all possible planning to minimize harm to the AP and the SPSP resulting from such use.

1.6.9 Wildlife and Habitat

The Preferred Alternative "May Affect, but Not Likely to Adversely Affect" smalltooth sawfish, eastern indigo snake, wood stork, and the West Indian manatee. The USFWS and NMFS have concurred with these effects determinations.[33,34] The project will not adversely affect any designated critical habitat. The project area is within the Core Foraging Area (CFA)[35] of documented nesting colonies of wood storks and the Regulatory Mitigation Plan adequately compensates for losses of CFA due to the Preferred Alternative.[38]

Several state listed plant and animal species have been reported or observed in the project area. It is anticipated that the Preferred Alternative could affect large flower false rosemary, Florida butterfly orchid, airplants, gopher tortoise, Florida pine snake, gopher frog, little blue heron, tricolored heron, reddish egret, snowy egret, white ibis, limpkin, and sandhill crane.

The Preferred Alternative will not adversely impact listed species although unavoidable impacts to wildlife habitat will occur. As discussed in Section 1.6.1 (Description of the Preferred Alternative) impacts to wildlife habitat decreased by reducing the width of the bridge. Despite these efforts, the Preferred Alternative will have unavoidable direct impacts to 6.83 acres of wetland habitat and 2.96 acres of upland habitat. A Regulatory Mitigation Plan has been developed to mitigate for unavoidable impacts, which includes measures to compensate for impacts to listed species habitat. The Regulatory Mitigation Plan will

[32] Minutes from meetings between the City and FDEP, August 17, 2010 and October 5, 2010 (**Appendix I**). This agreement is also contained in the Memorandum of Understanding between the City and FDEP (**Appendix L**).
[33] Concurrence letter from USFWS regarding eastern indigo snake, wood stork, and the West Indian manatee, dated October 15, 2012 (**Appendix A**).
[34] Concurrence letter from NMFS regarding smalltooth sawfish, dated January 4, 2013 (**Appendix A**).
[35] In South Florida, the CFA of the wood stork is defined as an 18.6 mile radius area from a known nesting colony.

adequately compensate for any unavoidable impacts related to the Preferred Alternative in a manner that will result in no net loss to listed species or their habitat.[36] The details of this plan are described in Section 7.3.4 (Wetlands, Wildlife Habitat, and Essential Fish Habitat)) and are summarized in Section 1.6.3.4.3 [Compensatory Mitigation (Wetlands, Wildlife Habitat, and Essential Fish Habitats)]. Cumulative impacts (within the project area) as a result of the Preferred Alternative are expected to be very low. Based on the above considerations, it is determined that there is no practicable alternative to the proposed construction in wildlife habitat and that the action, as proposed, will have no adverse effect on any threatened or endangered species.

1.6.10 Essential Fish Habitat

The project area contains three types of essential fish habitat (EFH): Estuarine Intertidal Scrub-Shrub (mangroves), Estuarine Subtidal Open Water, and Palustrine Emergent and Forested Wetlands (freshwater wetlands). Within the project area, EFH is equivalent to wetland habitats and Sovereignty Submerged Lands (SSL). The NFSLR project area provides EFH, during some portion of their life cycle, for eight fishery species managed by the South Atlantic Fisheries Management Council: Pink Shrimp, White Shrimp, Brown Shrimp, Gray Snapper, Dog Snapper, Sheepshead, Crevalle Jack, Bluefish, and two diadromous species: American Eel and Opossum Pipefish.

The Preferred Alternative will have unavoidable impacts to 6.83 acres of EFH wetlands (8.34 functional loss units) and 1.15 acres of impact to open water habitat (primarily due to shading) The compensatory mitigation plan includes mitigation for EFH. The details of this plan are described in Section 7.0 (Avoidance, Minimization and Compensatory Mitigation) and are summarized in Section 1.6.3.4.3 [Compensatory Mitigation (Wetlands, Wildlife Habitat, and Essential Fish Habitats)].

During its review of the DEIS, the NMFS provided EFH Conservation Recommendations (CR), as required under Section 305(b)(4)(A) of the Magnuson-Stevens Act. The City, through the FDOT, provided a response to the NMFS regarding its CR. An addendum to the EFH Assessment will be prepared during the design phase. The addendum will include detailed impacts to EFH, assurance the compensatory mitigation plan has been completed, and amended responses to the CR, if necessary. The completion of the addendum is a project commitment [Section 9.0 (Commitments and Recommendations)].

1.6.11 Farmlands

Through coordination with the Natural Resources Conservation Service (NRCS) it has been determined that the project area, which is located in the urbanized area of the City of Port St. Lucie, does not meet the definition of farmland as defined in 7 CFR 658. Therefore, the provisions of the Farmland Protection Policy Act do not apply to this project.

[36] No net loss to wood stork foraging habitat has been confirmed through the "Wood Stork Foraging Analysis Methodology."

1.7 Probable Adverse Environmental Effects Which Cannot Be Avoided

The Preferred Alternative will provide a new transportation connection between the west and east sides of the NFSLR. The NFSLR is bordered by wetlands, wildlife habitat, and essential fish habitat. The Preferred Alternative will have unavoidable impacts to these resources and project effects will be mitigated through a compensatory mitigation plan for unavoidable impacts. There is no practical alternative to the proposed construction in wetlands, wildlife habitat, and essential fish habitat. The Preferred Alternative includes all practicable measures to minimize harm that may result from such uses.

The visual landscape will be changed from a natural forested and river setting to a roadway and elevated bridge. Relocation of 65 residences is unavoidable with the Preferred Alternative, but no businesses will be relocated. The Preferred Alternative will have unavoidable impacts to neighborhood mobility and cohesion. However, because it is located along an existing roadway alignment, the mobility and cohesion impacts will be minimized, and visual impact to established neighborhoods will be minimal. The Preferred Alternative will have noise impacts to ten residential receptors. All impacted receptors will be benefited with reasonable and feasible barriers.

The Preferred Alternative will involve the bridging of wetlands, the AP/Outstanding Florida Waters, and will cross the SPSP. The Preferred Alternative will bridge the floodplain on pilings (as opposed to a filled causeway). The bridge will result in a loss of resources within the bridge footprint due to shading, the placement of piles, and habitat fragmentation. The Preferred Alternative will result in unavoidable impacts to 0.34 acres of uplands in order to accommodate the required stormwater management ponds.

The Preferred Alternative will result in unavoidable use to the SPSP and the AP, which have been determined by FHWA to be Section 4(f) resources. Based on the analyses contained in the Section 4(f) evaluation, unique or unusual factors are involved in the use of alternatives that avoid Section 4(f) properties and the cost, social, economic, and environmental impacts, or community disruption resulting from such alternatives reach extraordinary magnitudes. Alternative 1C has the least net harm to Section 4(f) resources and it has been selected as the Preferred Alternative. Based on the above considerations, there is no feasible and prudent alternative to the use of land from the AP and the SPSP and the proposed action includes all possible planning to minimize harm to the AP and the SPSP resulting from such use.

1.8 Irretrievable and Irreversible Commitment of Resources

The Preferred Alternative will require the use of 1.96 miles (approximately 40 acres) of land for highway purposes). The construction of the Preferred Alternative will include the loss of approximately 6.83 acres (8.34 functional loss units) of wetland area due to fill, ponds, and the placement of bridge piers. The Preferred Alternative will result in the removal of existing residential properties, which will be replaced with the transportation facility. Construction of the project will require the commitment of energy and materials, such as cement, aggregate, fossil fuels, steel, and bituminous material. In addition, projects of this size use large amounts of labor and natural resources in the fabrication and preparation of non-retrievable construction materials.

1.9 Feasible Measures to Avoid or Minimize Potential Adverse Impact

All appropriate and practicable steps have been taken to avoid impacts associated with the Preferred Alternative. This has been accomplished through a detailed evaluation of alternatives that was documented in the *Corridor Report* and the *Alternatives Report*.[37] These reports documented the need for the project and the process used to identify alternatives that address the project purpose and need. The material contained within these reports was discussed at public meetings, and these reports were reviewed by the cooperating and involved agencies. These reports were accepted by FHWA in March 2009.

Further avoidance strategies were identified through coordination with the cooperating agencies. A tunnel alternative, several bridging options, and variations of the alternative to widen the existing Port St. Lucie Boulevard and Prima Vista Boulevard bridges were examined. Based on the information gathered for this EIS and its technical support documents, a preferred build alternative was identified after coordination with the public, stakeholders, and the regulatory and cooperating agencies.

Through an extensive process of coordination with City, County, state, and federal agencies, a number of minimization strategies have been incorporated into the Preferred Alternative. Following the selection of Alternative 1C as the Preferred Alternative, additional avoidance and minimization measures were developed through coordination with the resource agencies, which reduced impacts to wetlands, essential fish habitat, SSL, and use of Section 4(f) properties. A compensatory mitigation plan has been developed for noise impacts, visual impacts, residential and business relocations, Section 4(f) resource impacts, and impacts to natural habitats (wetlands, wildlife habitat, and essential fish habitat). Details of the compensatory mitigation plan are described in Section 7.0 (Avoidance, Minimization and Compensatory Mitigation).

1.10 Short-Term Impacts versus Long-Term Environmental Benefits

The Preferred Alternative will result in short-term impacts during the construction of the new roadway, demolition of acquired properties, construction of the new bridge, and construction of the stormwater treatment system. These will be minimized by using top down construction or construction from temporary platforms, trestles or other similar methods. Maintenance of traffic will result in temporary inconveniences to motorists within the construction areas near U.S. 1 and the residential streets on the west side of the NFSLR. Boaters and recreational users of the River could be temporarily inconvenienced during construction activities in the main channel of the NFSLR, North Coral Reef Waterway, and Evans Creek. Temporary air pollution from dust and construction vehicle emissions and noise associated with construction operations cannot be completely avoided, but these effects will be minimized through the use of the FDOT *Standard Specifications for Road and Bridge Construction* and compliance with permit conditions associated with the project. Every effort will be made to minimize these short term impacts, which are further addressed in Section 5.3.19 (Construction).

Improved traffic flow and LOS, improved intersection geometry, improved emergency vehicle response time, improved safety, and improved access to evacuation routes will be long-term benefits under the

[37] These reports are available on the ETDM website: http://etdmpub.fla-etat.org/est and search under Project #8247.

Preferred Alternative. The long-term environmental benefits include the elimination of current congestion, which will result in an overall air quality improvement and more efficient use of energy.

1.11 Conclusions

The No Build Alternative, a multimodal alternative, a TSM alternative, and six build alternatives were fully evaluated in this EIS. The multimodal alternative, the TSM alternative, and the No Build Alternative were rejected because they did not meet the purpose and need for the project. Based on this analysis and through coordination with the cooperating agencies, state and municipal agencies, and the public, Alternative 1C is the Preferred Alternative. This document presents a description of the advantages and disadvantages of the Preferred Alternative, compared to the other alternatives, and the specific impacts, both positive and negative of this alternative.

1.11.1 Project Funding

Using a combination of City, Transportation Planning Organization (TPO), FDOT (state and federal) funding sources, the City has fully funded the design and right of way phases for the project. The construction phase is funded through the City's sale of bonds, FDOT funding and federal funding. Documentation of the funding for this project can be found in the St. Lucie County TPO Transportation Improvement Program (TIP), the FDOT State Transportation Improvement Program (STIP), and the TPO Regional Long Range Transportation Plan (RLRTP). This information is summarized in **Table 1.2**, and is noted in the Planning Consistency Form along with relevant pages from the adopted TPO TIP, FDOT STIP and TPO RLRTP (**Appendix K**).

Table 1.2 Project Funding Summary

Phase	Source	2013	2014	2015	2016	2017	2018	Total
PE	Local	$3,290,572	$4,920,799					$8,211,371
PE	FDOT[1]							$0
PE	Sub-Total	$3,290,572	$4,920,799	$0	$0	$0	$0	$8,211,371
R/W	Local	$603,790	$217,780	$3,018,804				$3,840,374
R/W	FDOT[1]	$2,909		$14,197,896				$14,200,805
R/W	Sub-Total	$606,699	$217,780	$17,216,700	$0	$0	$0	$18,041,179
CONST	Local		$43,566,527					$43,566,527
CONST	FDOT[1]		$44,932,104		$18,747,976			$63,680,080
CONST	Sub-Total	$0	$88,498,631	$0	$18,747,976	$0	$0	$107,246,607
	Grand Total	$3,897,271	$93,637,210	$17,216,700	$18,747,976	$0	$0	$133,499,157

Sources: Adopted 2014 – 2018 TPO TIP, Adopted FDOT STIP, and City of Port St. Lucie

[1] For the purpose of this summary table, FDOT refers to the sum of the combined state and federal funding sources.